

# American Aviation

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## Fortnightly Review

### Progress

IT WAS good news indeed that came out of the Civil Aeronautics Authority on July 19 in connection with the Northwest Airlines rate case decision:

"Weight-credit schedules and weight-credit mileage will thus disappear from the future treatment of the routes covered by the present proceeding."

Just what this decision presages in the way of decisions for other air mail carriers is not immediately known, but at least the Authority has taken a forward-looking step in tackling what we have long believed to be a deep-rooted evil of air mail carriage since 1934.

For almost five years the public has benefited by an air mail service under the weight-credit system which was not exactly justified or fair from the standpoint of mail payments to the carriers. The public has received a better service than the government actually paid for. Theoretically the weight-credit system was to work out satisfactorily and fairly to the carriers but like many government compromise measures it was, in fact, an evasive and somewhat hypocritical method of providing air mail service for the public.

The heart of the air mail system has been the pay schedule. Probably the public believes that all airline trips carry air mail. It is true that most airline trips carry mail but in the case of the larger lines there are only certain trips that are actually designated pay schedules. But the Post Office desired to take advantage of non-mail schedules in order to hasten delivery, hence the credit-mail system was devised by which mail was placed on non-mail schedules and

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## United Buys 6 Douglas DC-4's; Will be 52-Passenger Ships

### Formations From 11 Air Corps Fields To Fly on Aug. 2

All Air Corps posts and stations on Aug. 2 will celebrate the 30th anniversary of the purchase of the first military plane for the U. S. Army. The public will be welcomed to Air Corps posts throughout the country and formation flights of military planes over neighboring cities and towns will be made. It is planned that all planes will take off on a given signal from the War Dept. in Washington.

Thirty years ago, on Aug. 2, 1909, Brig. Gen. James Allen, then chief signal officer of the Army, approved the recommendation of a board of officers appointed by the War Dept. that the Army purchase a plane built by Orville and Wilbur Wright at their Dayton, O., shop. Contract called for a heavier-than-air machine capable of carrying two persons with a combined weight of 350 lbs., fuel for a 125-mi. flight and able to remain in the air for an hour with this load.

In test flights the plane flew 42 mph. and eventually attained a record speed of 47 mph.

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### Anniversary Chief



Maj. Gen. H. H. Arnold

Chief of the Army Air Corps, which celebrates its 30th anniversary on Aug. 2. Details on pages 6 to 9. (Air Corps Photo).

### Competitors Expected to Renew Interest in 4-Engined Equipment

With announcement July 13 by W. A. Patterson, president of United Air Lines, that his company has placed an order for six DC-4 four-engined landplanes, at a probable cost of \$500,000 each, with Douglas Aircraft Co. of Santa Monica, Cal., the uncertainty concerning the air transport industry's move into large four-engined equipment has been removed.

No less dramatic than the ordering of these ships was Mr. Patterson's unofficial announcement in Los Angeles July 20 that the production model DC-4's for United would be equipped with 52 seats instead of the 42 which were placed in the prototype model under test for more than a year. With an increased gross weight, the DC-4 becomes more of a transport sensation than had been contemplated.

Thus the air transport industry again moves into a stage of equipment speculation and competition. Both TWA and American, United's transcontinental competitors, turned down the DC-4, but American is considered a lively buyer within the near future. TWA, on the other hand, is now expected to resume its interest in the four-engined 33-passenger Boeing 307 Stratoliner which it originally ordered several years ago. No one in the industry believes that TWA and American will stand by and permit United to be the only operator of four-engined equipment.

With United expecting to have its DC-4's in operation by the summer of 1941, TWA still has an opportunity to have a year's advantage if it takes the Stratoliner, which are all but complete at the Boeing plant in Seattle. Although the Boeing 307 has not yet received its approved type certificate from the Civil Aeronautics Authority, flight tests are now under way and TWA could have the ships in operation next year.

Although American has consistently maintained that it was not interested in the DC-4, west coast aviation interests indicated that the airline would move into four-engined planes in the near future now that United has definitely signed an order.

The far west is considered much more partial to and enthusiastic about

(Turn to page 4, col. 4)

## Weight-Credit Trips Abolished in Northwest Rate Decision

### CAA Opinion Long Awaited by Industry; NWA to Get Pay on All Mileage Flown With Mail; System Divided at Minneapolis

The much-debated question of what the CAA would do with weight-credit trips was answered July 19 when the Authority issued a precedent-establishing rate decision on Northwest Airlines, abolishing such trips and setting payent for all mileage flown with mail.

The ruling, long awaited by the industry, and which is of great importance to the larger carriers who have many weight credit trips, also contained a new wrinkle in that it divides Northwest's system at Minneapolis instead of at Fargo, and sets rates as follows: between Chicago and Minneapolis, a base rate of 25¢ per airplane mile for all mileage flown with mail; between Minneapolis and

the west coast, 37¢ per mile for all mileage flown with mail.

Rates apply on 300 lbs. of mail, plus 2.5% of such amount for each additional 25 lbs., and are based on direct airport-to-airport mileage. NWA, which now receives 28¢ on AM16, Chicago-Winnipeg, and 31¢ on AM3, Fargo-Seattle-Portland, had requested an overall rate of 45¢. The new rate goes into effect Aug. 1.

In addition, the Authority's order provides for payment to NWA for the time since its application was filed (Nov. 22, 1938) to July 31, 1939, of a base rate of 38¢ per mi., subject to the same conditions that operated under the Interstate Commerce Commission decisions, i.e., subject to the "sliding

(Turn to page 4, col. 1)



## Off the CATAPULT

Descended from the famous Vought Corsair, first service type airplane ever to be launched by catapult, the new Vought-Sikorsky Observation Scout is now in quantity production. Bringing the advantages of the monoplane type to catapult operations, the OS2U-1 incorporates several design and structural features never before combined in one airplane. Its high performance, small wing span, light weight and low landing speed, mark a new milestone in the development of Observation Scout airplanes for the United States Navy.

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## U. S. Production Will Equal Rest of World Combined—Hester

Clinton M. Hester, CAA Administrator, on July 18 predicted that within five years the United States will have a productive capacity in airplanes equal to that of all the rest of the world combined, and also stated that the scheduled airlines probably will show a \$500,000 profit for the first six months of 1939.

Speaking at a dinner for students and faculty of Parks Air College in St. Louis, Hester stated: "Ignoring military production, on which very properly no figures are now available, and ignoring export production, both military and civil, which showed an increase of 64%, 1,162 civil airplanes were produced (in first six months) for domestic use as against 833 for a similar period in 1938. This represents an increase of 36%. Only 40 were in the multimotored class of 25,000 lbs., or upward."

"There were a thousand actual new customers, in other words, rung up on the cash registers of private flying. It is safe to predict an increase of 50% in the manufacture and sale of private planes for the year 1939. All of this, mind you, before the effect of the Authority's program for training 15,000 students has even begun to be felt."

Hester made public for the first time that for the 12-month period ending June 30, the U. S. airlines flew 630,000,000 miles with only 15 passenger fatalities, or over 42,000,000 passenger-miles per passenger fatality. Increased patronage of the airlines has been due solely to this safety record, he said, giving credit to the airlines themselves, to Congressional policy of providing more airway aids, and to the "insistent preoccupation" of the CAA.

"The men who have been running the airline transport business, I am proud to say, are not that kind of business man who sits on his hands and waits that there is no way to do business," Hester said. "They have produced a commodity, safe flying, that would sell. They have gone out and sold it to the tune of a half million dollar profit in six months. The results of that growth are evident in the fact that during the last 90 days the airlines have put on 90 new schedules, a new schedule a day every day for three months, because they found the customers to buy those schedules."

### Dr. Smith Joins CAA

Dr. E. Dillon Smith has joined the analysis and research section of the Civil Aeronautics Authority as principal analyst for traffic. He holds degrees from Columbia University.

### Portland Show Set

Portland, Ore., July 15—Consent to use Portland-Columbia Airport for the Portland show of the 1939 Oregon Air Tour has been granted by the Port of Portland. Tour, which starts Aug. 5 at Albany, will be headlined by Tex Rankin.

### Schiebel With Gillies

Formerly with Leech Aircraft Inc. at Roosevelt Field, Mineola, L. I., Henry J. Schiebel Jr. is employed by Gillies Aviation Corp., Hicksville, L. I.

### Southern Contract Renewed

Southern Air Services' contract for instruction in the Memphis section of the Tennessee state flying school has been renewed and flight instruction of 15 students will begin at once, according to an announcement by Fred Lanier, Southern manager. Comprising the school staff, in addition to Lanier, are Charles Pugh, Ben Douglas, and Richard Johnson.

### Texas Institute Opens

The Texas Institute of Aero Dynamics with engine division offices at 808 Scanlan Bldg., Houston, Tex., has opened evening classes for training engine mechanics, according to J. H. Kneeland, director.

## Private Flyer



Corrington Gill

Assistant Administrator of the Works Progress Administration, who has taken up flying as a hobby. By flying before and after office hours he has accumulated over 50 hours to date.

## COLORADO COMMISSION

T. C. Drinkwater, Charles Boettcher II Appointed to State Aeronautical Commission; Vasconcells Reappointed Chairman

Gov. Ralph L. Carr of Colorado recently announced the appointment of Terrell C. Drinkwater and Charles Boettcher II of Denver, to the state aeronautical commission, and the reappointment of Jerry Vasconcells as chairman.

Drinkwater and Boettcher take the places vacated on July 6 by Maple T. Harl of Denver, and Vernon Cheever of Colorado Springs. The five-man commission was created by the Colorado legislature in 1937, having charge of such matters as airport construction, development of aviation schools, encouragement of feasible air routes throughout the state and establishment of rules and regulations for licensing locally-constructed aircraft. Each member is appointed for two years.

Boettcher has taken an active part in the organization of air transport companies, holding stock in Western Air Express. Drinkwater is a well-known Denver attorney, who has appeared before the CAA in Washington recently as counsel for Continental Air Lines and Mid-Continent Airlines. Vasconcells is Colorado's only World War ace. The two other members of the commission are Maj. F. W. Bonfils, chief officer of the Colorado National Guard Observation Squadron, and John H. Stark, private flyer. Their terms expire in 1940.

## Air France Crossing

The nine-year-old flying boat "Lieutenant de Vaisseau Paris" made another Atlantic crossing for Air France Transatlantique on July 15 when it landed at Biscarosse, after flying non-stop from Port Washington, L. I., where it took off on the morning of July 14. The Lieutenant ended its first trans-Atlantic experimental flight at Port Washington on May 18. Twelve round trips with the ship have been planned this year it was announced following the first flight.

## Reading Manager Named

Melvin H. Nuss, secretary of the Reading (Pa.) municipal airport commission, was appointed manager of the new "\$1,000,000" field, effective July 1 at an annual salary of \$2,400. Provision has been made for a chief clerk at a yearly salary of \$1,200, although no one was reported named to the post. Present member of the commission, Donald T. Beaumont, was reappointed for a five-year term. Clifton O. Hadley has been appointed technical adviser to the commission.

## Calendar

- Aug. 5-13—Oregon Air Tour, beginning at Albany.
- Aug. 6—Annual Air Meet, Jefferson, Ia.
- Aug. 6—Wakefield Cup Contest, New York, N. Y.
- Aug. 10-12—Illinois' Pilots' Air Tour and Efficiency Flight Contest, beginning & ending at Springfield.
- Aug. 11-12—Minnesota Dept. N. A. A. Convention, St. Cloud.
- Aug. 11-13—Muskoka Air Cruise, leaving Island Airport, Toronto, Ont.
- Aug. 14-17—Wisconsin Air Tour, leaving Stevens Point.
- Aug. 19—National Aviation Day.
- Aug. 20—Dedication of Dove Field, Geneva, N. Y.
- Aug. 20-21—Annual Air Show, Sheldon Aeronautics Club, Sheldon, Ia.
- Aug. 26-27—Dedication of Chicagoland Glider Council's field, between Wheaton & Glen Ellyn, Ill.
- Aug. 26-Sept. 9—Exposition for Aircraft & Accessory Mfrs., N. Y. State Fair, Syracuse.
- Aug. 27-Sept. 5—American Open Soaring Meet, Frankfort, Mich.
- Sept. 2—King's Cup Race and Wakefield Trophy Race, Birmingham, England.
- Sept. 2-4—National Air Races, Cleveland.
- Sept. 3—Gordon Bennett Balloon Race, Poland.
- Sept. 4—Aero Club of the Republic of Poland International Competition for Gordon Bennett Cup, Warsaw.
- Sept. 4-8—ASME & Inst. Mech. Eng. of Great Britain, Meeting on Mechanical Problems of Modern Transport, New York.
- Sept. 10-3d Annual Air Show, sponsored by Rocky Mountain NAA Chapter.
- Sept. 11-17—International Congress of the Aeronautical Sciences, I. Ae. S., Columbia University, New York.
- Sept. 11-24—Air Progress, Sponsored by NAA.
- Sept. 13-15—International Air Traffic Association Meeting, New York.
- Sept. 15—I. Ae. S., Dinner to Delegates to International Congress, New York.
- Sept. 16—International Aviation Day, New York World's Fair.
- Sept. 23-24—9th Annual Air Show, Willows, Cal.
- Sept. 28-29—Western Aviation Conference, Fresno, Cal. (Tentative).
- Oct. 1—Deutsch Cup Race (speed), Etampes, France.
- Oct. 2-17—3d International Aeronautical Show, Milan, Italy.
- Oct. 5-7—Northwest Aviation Planning Council, Olympic Hotel, Seattle, Wash.
- Oct. 5-7—SAE National Aircraft Production Meeting, Los Angeles.
- Oct. 12-14—NASAO Annual Convention, Hotel Roosevelt, New Orleans.
- Oct. 16-20—National Safety Congress and Exposition, Atlantic City.
- Nov. 3-7—Annual Convention, Aeronautical Medical Association, Hollywood-by-the-Sea, Florida.
- Dec. 7-8—Annual Meeting, Kansas State Aviation Association, Wichita.
- Dec. 16—I. Ae. S. Wright Brothers Lecture, New York.
- Dec. 27-Jan. 2—AAA Winter Meeting, Columbus, O.
- Jan. 5-7—All-American Air Maneuvers, Miami.
- Apr. 26-28—Air Congress of America, Southwest Division, Tulsa.

## Comdr. Barnaby Promoted

After two years at the U. S. Fleet Air Base, C. Z. Comdr. Ralph S. Barnaby, U. S. Navy, has been ordered to duty at the Naval Aircraft Factory, Philadelphia. Comdr. Barnaby, who was promoted to that rank from the lieutenant effective May 4, was assembly and repair officer in charge of maintenance of the squadrons of patrol seaplanes based in the Canal Zone. Comdr. Barnaby is expected to renew activity in the Soaring Society of America and gliding and soaring in general on his return to the States.

## New Service Inaugurated

Inauguration of a new training and passenger service at Logan-Cache airport, Logan, Utah, July 8, was marked by a good-will visit by Salt Lake City airmen. Leading the six-plane delegation were planes piloted by Clinton Seal, president of the Utah Pilots' Association, and Ray Peck, manager of Thompson Flying Service.

## New CAA Examiner

Thomas Wrenn, formerly connected with the bureau of foreign and domestic commerce of the Dept. of Commerce, has joined the CAA as an examiner.

## Examiner Leasure Will Conduct CAA Hearings in West

CAA Examiner C. Edward Leasure left Washington July 30 on a flying trip through the west during which he will conduct six hearings involving "grandfather" certificates, a new route and an interlocking directorate.

Leasure will fly to Chicago, Bismarck (Dakota Air Transport hearing, Aug. 2), Cheyenne, San Francisco (United Air Lines, Aug. 7; Condor Air Lines, Aug. 11, and Continental, Aug. 12), Los Angeles (Wilmington-Catalina Airlines, Aug. 14), El Paso (Continental, Aug. 17) and back to Washington.

Optimistically planning that the trip will last only three weeks, Leasure will travel on as many different airlines as possible and will visit several maintenance bases. Main purpose of the trip is to clean up as many of the "grandfather" applications as possible in a short time.

Looked upon with increasing favor by the Authority, Leasure, who holds degrees in civil engineering and law, had extensive experience as an examiner in the Interstate Commerce Commission's air mail bureau before establishment of the CAA. He is now in charge of the examiner's division.

Accompanying Leasure will be Hubert Schneider, young attorney who will represent the Authority in a legal capacity. Schneider has participated in several hearings to date involving new route applications and interlocking directorates.

## SABOTAGE DENIED

No Evidence Found in Crash of Francisco Sarabia, Mexican Ace, CAA Declares

Following publication in a Washington newspaper on July 18 of a story stating that evidences of sabotage had been discovered in the accident which took the life of Francisco Sarabia, Mexican flyer, at Bolling Field, June 7, the CAA issued a statement denying all such reports.

"In view of the serious implications contained in the story it is desired to make public at this time the fact that neither the investigation conducted by the Air Safety Board of the CAA or that being conducted by the War Department has disclosed any indications whatsoever of any evidence of sabotage," the statement said.

## Radio Projects Underway

Radio development projects announced as now underway through funds available to the CAA technical development division include the testing of ultra-high frequency radio ranges on towers and of modifications of instrument landing systems; the development of two course visual ultra-high frequency radio range with quadrant identification and of the visual indicator for flying ultra-high frequency range; the development of warning devices to precede broadcasts and the installation of three direction finder stations; the testing of omnidirectional radio beacon; the investigation of radio range sites and of frequency modulated radio ranges, and the development of simultaneous ultra-high frequency radio ranges.

## Pujo Heads Air France

Bertrand Pujo, former chief of the French air force general staff, on July 18 was named president of Air France Transport Co., replacing Paul Tirard who resigned after a decree of May 11 required that heads of major transportation companies be named by the government. Pujo is a retired aviation general.

## Weight-Credit Trips

(Continued from page 1)

scale," and including only mail pay trips.

During 1938, NWA reported a net operating loss of \$404,592.30, the CAA stated. "Without attempting to establish bases of cost allocation between petitioner's pay mail and non-pay mail schedules, it seems obvious that the losses sustained by it were attributable in part to its non-pay mail schedules," the opinion said. Section 406 (b) of the Civil Aeronautics Act, which states that the CAA shall take into consideration the need of each carrier for compensation sufficient to insure the development of air transportation to the extent required for U. S. commerce, postal service and the national defense, "contemplates an examination of all non-pay mail operations," the decision stated. "It is equally clear that non-pay mail operations in excess of such requirements (U. S. Commerce, postal service, national defense) are to be excluded from consideration in the determination of the rate. It is impossible to accept a concept of rate determination which would rest in a blanket assumption by the government of losses resulting from the operation of non-pay mail mileage, and would leave to the sole discretion of the carrier the amount of such mileage that should be flown. The Act does not contemplate any such consequence."

The Authority pointed out that section 405(e) of the Civil Aeronautics Act, unlike section 3(f) of the Air Mail Act of 1934 (weight-credit section), does not establish a distinction among types of mail schedules. "It, therefore, becomes appropriate now to fix a rate of compensation to be based upon the entire mileage flown with mail under authorization by the Postmaster General, rather than upon a certain selected portion of such mileage," the opinion stated.

Continuing, the Authority said: "The change in the basis of compensation thus made may be expected normally to be without future effort upon the aggregate obligation to be borne by the government from postal appropriations, since the amount of operation to be given consideration, and the assurance of continued maintenance, in fixing the rate of mail compensation would in any case be that established by the joint interests of commerce, postal service and the national defense. It would therefore be immaterial in respect of the aggregate sum expended whether the amount of operation corresponding to the 'extent and the character and quality required' by those several objectives is supported by the payment of a certain rate upon all the mileage on which mail is carried, or by the payment of a higher unit rate upon a part of the mileage used for mail, as in the past."

"In passing from the number of specifically identified pay-mail schedules, used as a basis of payment in the past, to the total number of schedules authorized by the Postmaster General for the carriage of mail, now to be substituted as a basis under the Act of 1938, any increase in the mileage on which compensation is paid will involve a reduction in the unit rate of compensation as compared with the rate which would be necessary to meet the standards set in the Civil Aeronautics Act if the old basis of determining the mileage for payment were to be continued. It of course follows, as a corollary of the foregoing considerations, that in the event of a change in the existing total of authorized mail schedules there probably will be occasion for an immediate consideration of the rate theretofore established. An increase in the number of schedules authorized by the Postmaster General for the carriage of mail would normally be expected to permit of a reduction in unit rate of compensation, if only because of the saving in unit overhead cost that commonly results from increased intensity of operation."

"A reduction of schedules... upon the other hand, would not only introduce the converse of that effect, tending to increase unit operating costs through diminished volume and intensity, but would allow the raising of a question relative to the adequacy in the interests of commerce and the national defense of the remaining service. Any raising of that question would present the issue of whether or not there existed justification for continuing to support, through the rate of mail compensation set for the surviving mail schedules, the continued operation of the schedule or schedules with respect to which authorization for

the carriage of mail had been terminated."

Reasons for dividing NWA's system at Minneapolis instead of at the meeting point of the two air mail routes is seen in the following statements: "Petitioner's system divides readily into two sections presenting somewhat different problems, east and west of Minneapolis, respectively. East of Minneapolis, schedules are frequent; the proportion of non-pay mail mileage has been large, and traffic is heavy. West of Minneapolis the number of schedules is smaller; the amount of non-pay mail mileage has been a very small proportion of the total; and the traffic is in general comparatively light... In the light of past experience, the two portions of the route between which a division is made at Minneapolis are so different in traffic volume, as well as in frequency of operation of petitioner's schedules, that it seems altogether appropriate to fix different rates for the transportation of mail on the two sectors thus divided. To do otherwise, setting a single rate for the entire system, would be merely to take a weighted average of two substantially different figures, corresponding to different operating costs and to widely different commercial revenues anticipated. The resulting figure would be purely artificial, serving for the purpose of computing the compensation due each month but without physical meaning in terms of actual operating costs and revenues, and requiring re-determination with every change in distribution of volume of operation among the major sectors of which the system is composed."

Northwest now has three mail-pay and two weight-credit trips between Chicago-Minneapolis, and three mail-pay flights west of the latter city, except Fargo-Winnipeg, where there is one, and Portland-Spokane, where there also is a weight-credit trip.

One bugaboo may appear when, under a system of paying for all trips, the PO goes to Congress for appropriations. If a rate, for example, was established on the basis of five trips over a certain route and Congress saw fit to appropriate for only four, it might be necessary for the CAA to re-determine the rate.

Another thing that PO and air transport officials hope will not result is curtailment of mail schedule frequency. For example, if at present an airline is operating 15 schedules, three mail-pay and 12 weight-credit, between two points and the CAA would decide that, in the interest of commerce, postal service and national defense, only 10 trips were necessary, it would result in the carrier being unable to place mail on the remaining five. Such a situation might arise between Boston and Newark, where American Airlines operates three mail-pay and 12 weight-credit, between Newark and Washington, where Eastern flies four mail-pay and 10½ weight-credit or between Newark and Chicago, where American, United and TWA offer frequent service.

### NWA's Pay Upped \$307,000

According to a Post Office estimate, the Northwest Airlines' rate decision, issued July 19 by the CAA, abolishing weight-credit trips and setting pay for all mileage flown with mail, will mean approximately \$307,000 additional per year to the company, figured on 100% performance. The estimate figures five daily round trips Chicago-Minneapolis, three daily Minneapolis-west coast, except Fargo-Winnipeg, where there is one, and Spokane-Portland, where there are two.

## CAA to Re-Rate All Pilots Holding Flight Instructor Ratings

Announcement that all airmen holding flight instructor ratings who expect to take part in the CAA's flight training program in schools and colleges this fall must be re-rated by Oct. 1 was made by the Authority July 15, together with the statement that all other instructors also will be required to be re-rated, probably by Oct. 1, 1940.

The work of re-rating will be started by the Authority's inspectors on or about Aug. 15. It is learned that 21 inspectors are to be assigned exclusively to the job, and they will meet with all senior aeronautical inspectors in Chicago on Aug. 2 to complete plans. In all more than 4,000 pilots are expected to be affected.

A 205-page flight instructors' manual has been prepared by the Authority's general inspection section and placed on sale in the Office of the Supt. of Documents, Washington, D. C., for 25c per copy. All instructor re-rating procedures and tests will be based on the information contained in this publication.

Described as "the first step in a general program designed to increase safety in the future training of all student pilots, the re-rating move is said to be the direct result of independent research by the CAA's private flying development division and of a series of recommendations made by the Air Safety Board following its study of 627 accidents during 1938 involving three types of light aircraft most extensively used for instruction and private flying.

The move also is part of a program to clean out persons holding instructors' ratings, but who never intend to teach. Many pilots, it is said, merely secured the rating so as to be permitted to carry a passenger in the front seat of a plane having dual controls. Recently, however, the Authority revised the regulations enabling any pilot with more than 200 hrs. solo to carry a passenger.

In connection with its survey of light aircraft accidents, the Air Safety Board said: "Two of the outstanding results of this study were the revelation that an abnormally large percentage of the accidents concerned occurred to students flying solo both in the vicinity of an airport and cross-country, and that a very large percentage of accidents involving student pilots definitely could be attributed to faulty technique and poor judgment. It is also apparent, from even the most cursory review of these reports, that the flying and ground handling characteristics of the aircraft concerned leaves much to be desired from the standpoint of inherent safety."

The Board then submitted the following recommendations: (1) that all commercial pilots now holding flight instructors' ratings be examined by the CAA as to their competency before such ratings are renewed; (2) that consideration be given to increasing the present requirements for renewal of an instructors' rating; (3) that the CAA immediately take steps towards assuring the adequacy of and standardization of ground and flight instructions; (4) that student pilots be required, before being permitted by the instructor to make a solo flight, to accomplish a satisfactorily written examination before a CAA inspector on elementary aerodynamics, the theory of flight, and air traffic rules as set forth in part 60 of the Civil Air Regulations, and pertinent portions of part 20 of the CAR, knowledge of which is considered essential to the safe navigation of aircraft in the vicinity of airports; (5) that solo flights by pilots possessed of student certificates be restricted to gliding distance of the airport from which the flight originated, and that all such flights be under the personal supervision of a certificated instructor; (6) that an applicant for a solo, private, limited commercial, or commercial certificate of competency be required to obtain the endorsement of a certificated instructor, that, in the opinion of the instructor, the applicant is qualified for the class certificate for which application is made.

and (7) that the CAA take steps to encourage or require incorporation of built-in safety characteristics in the basic design of future light airplanes which will make them inherently difficult or impossible to spin or stall.

The re-rating action taken by the CAA is in answer to the first three recommendations. "The Authority has indicated its approval of recommendation 4 with the exception that it feels the examination indicated should be made a responsibility of flight instructors rather than of its inspectors, who are already overburdened with work and unable to assume this additional task," the CAA has announced. Recommendations 5 and 6 are under advisement and the Authority has "expressed its full agreement" with No. 7.

### Germany Gets Air Base

German-owned Bolivian Airways has acquired an important air base at Trinidad, on the Mamore River, and is constructing a huge modern base which, it is believed, will accommodate trans-Atlantic planes, it was learned recently. This news coincides with news that the Germans are attempting to acquire from General Francisco Franco an airbase on the Spanish island Annobon, off Africa's west coast. In addition to petroleum products Bolivia has promised Germany in exchange for refinery equipment and pipelines in the deal, Germany will take vegetable oils and rubber from the Bolivian lowlands. German concerns also have received concessions to work gold deposits in the South American country.

## 6 DC-4's

(Continued from page 1)

four-engined planes than the east and a survey of a few leading aviation experts indicated that they believe two-engined equipment on major transcontinental operations will be a thing of the past within two or three years.

After notifying presidents of American, TWA, Pan American and Eastern, all of whom were parties with United to a contract with Douglas for the construction of an experimental DC-4, of United's proposed purchase, Mr. Patterson stated: "Our analysis, checked by independent market research groups, of expected traffic in 1941 shows that there will be sufficient traffic to warrant fleet operation of DC-4 airplanes. United's coast-to-coast business this year is 32% ahead of last year. Use of the 42-passenger transports on short flights will probably not be feasible as such operation would impair frequency of service, which has built up traffic on short-haul trips. The importance of the commuter type of service now prevailing between such cities as New York and Chicago and between Los Angeles and San Francisco, proves the public wants frequency of service primarily." Patterson indicated that prior to placement of the contract for the six planes, several changes in the specifications from the experimental DC-4 will be asked by United. He did not list the changes.

It is expected on the west coast that by this time next year there will be 20 DC-4's on order, in which case the price will be down. KLM Royal Dutch Air Lines has not signed, but negotiations are in progress for six ships. United has not purchased the experimental DC-4. The possibility of experimental flights is rumored, and it also has been mentioned that the Army may take the plane.



# The Last Frontier...



Across Europe and Asia by Imperial Airways and KLM . . . over the Pacific by Pan American . . . from the Pacific to the Atlantic by American, United, TWA or Trans-Canada . . . and now across the Atlantic by Pan American's newly inaugurated route between New York and Europe. The last great link in round-the-world air service has now been forged!

Boeings, Douglasses, Lockheeds, Short Empire Boats, Martins and Sikorskys—every type of modern transport on this globe-circling route is equipped with a Sperry Gyropilot, a Sperry Gyro-Horizon and a Sperry Directional Gyro.



Sperry Gyro-Horizon



Sperry Directional Gyro



Sperry Gyropilot

## SPERRY GYROSCOPE COMPANY, Inc.

BROOKLYN, N.Y.

# U. S. Army Air Corps Marks 30th Anniversary on Aug. 2

## Purchase of First Plane from Wright

Brothers Recommended Aug. 2, 1909

THE 30th birthday anniversary of the Army Air Corps, which is to be celebrated Aug. 2, dates from the time when a board of officers in the aeronautical division, office of chief signal officer, recommended that the Army purchase the airplane which had been constructed by the Wright brothers.

Although balloons were used for observation purposes during the Civil War, the aeronautical division was not established in the office of the chief signal officer until July 1, 1907. In December of the same year, the War Dept. advertised for bids for the construction of an airplane. The Wright brothers, proving that they were the only persons capable of building a plane, delivered the ship at Ft. Meyer, Va., on Aug. 28, 1908, and recommendation for its purchase was made Aug. 2, 1909.

A biplane with a 40-ft. wingspread, weighing approximately 800 lbs., the Wrights' plane was laterally controlled by warping the wings. Double elevators and the rudder were supported in front of the wings by an outrigger arrangement. Landing gear consisted of two runners, or skids, and the plane was launched from a monorail. The Wright-designed, 4-cylinder water-cooled engine produced 25 hp. at 1,400 rpm. and drove two 8½-ft. wooden propellers by means of gears and chains. Prop speed was 400 rpm.

The Wright brothers satisfied all requirements, i. e., the plane did better than 36 mph., stayed in the air for over an hour with two occupants, had a range of 125 miles, and could be transported in an Army wagon. The Wrights received \$25,000 for the plane, plus a \$5,000 bonus for its having exceeded the required performance.

It was on May 3, 1911 that Congress for the first time specifically appropriated money (\$125,000) for aviation, and by Sept. 30, 1913, Army aviation had grown to 17 planes, 23

officers and 91 enlisted men. The aviation section, Signal Corps, was created on July 18, 1914, and on Sept. 1 of the same year, the 1st Aero Squadron was organized at San Diego, Cal. Aviation remained under the Signal Corps until May, 1918, when it was expanded into the Bureau of Military Aeronautics and the Bureau of Aircraft Production. At the end of the War, these two departments were consolidated into the Air Service. In 1926, the Air Service became the Air Corps.

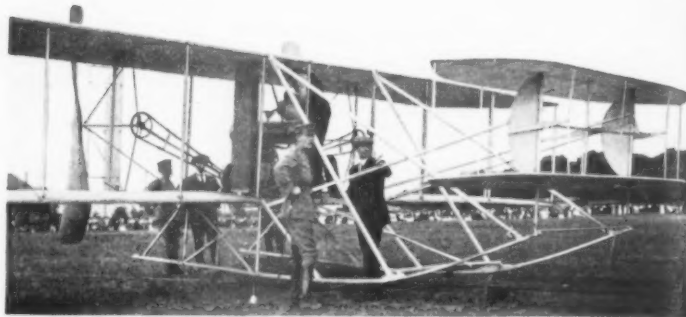
Principal activities of the Air Corps today include the GHQ Air Force, Materiel Division, Air Corps Training Center, Air Corps Tactical School and Air Corps Technical School.

The GHQ Air Force, relatively new instrument of air defense, was organized Mar. 1, 1935, and is made up of all the combat squadrons within the continental limits of the U. S. The squadrons are organized into three wings: 1st Wing, March Field, Cal.; 2d Wing, Langley Field, Va., and 3d Wing, Barksdale Field, La. Operation of the GHQ results in a uniform system of training and in the ability of all units to work together as a team, the Air Corps has explained.

"The aim of the Materiel Division has always been to maintain the technical position of our Air Corps as second to none in the world," the War Department explained. Located at Wright Field, Dayton, O., where \$10,000,000 has been spent to provide laboratories, the division has been involved in many aircraft developments, commercial as well as military. Achievements in which the division has had a hand include: development

(Turn to page 8, col. 1)

## The First



This Wright designed plane was the Air Corps' first craft. (Air Corps Photo).

## Latest Craft for Air Corps

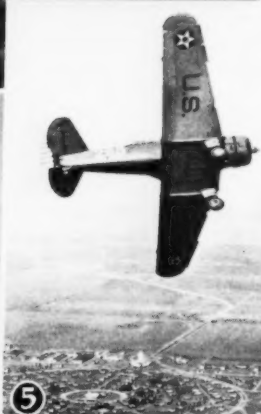


The latest type aircraft purchased by the Air Corps is the Boeing XB-15 Super Flying Fortress shown in foreground. Beyond is a Boeing P-26. (Army Air Corps Photo.)

## Army Devises Brake Testers

Two inertia brake testing machines, the only ones of their kind in existence, have been assembled at Wright Field, Dayton, for the Army Air Corps. According to the *Air Corps News Letter* each machine consists principally of a flywheel driven by an electric motor, a spindle upon which

the airplane wheel to be tested is mounted, a large air pressure cylinder for actuating the spindle, and an operating and instrument recording panel which shows time consumed in bringing a wheel to a stop from various speeds, resulting effect on tire, wheel and brakes, and amount of hydraulic pressure required.



1. Formation of Air Corps Seversky P-35's. 2. Formation of Boeing P-26's. 3. Formation of Curtiss P-36's (79th Squadron). 4. Formation of bombardment planes. 5. North American BT-9 basic trainer over Randolph Field, Tex. 6. Air Corps parade over Los Angeles. 7. Bomber over New York City. (Official Photographs, U. S. Army Air Corps).



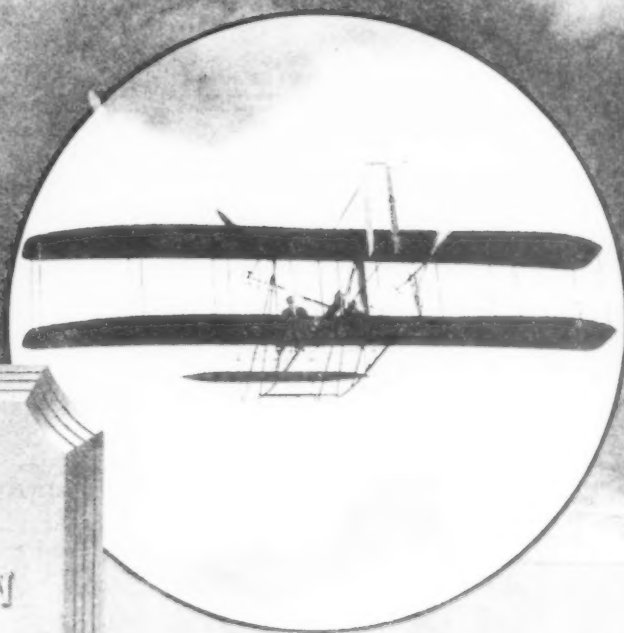


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# THIRTY YEARS OF U.S. ARMY AVIATION 1909-1939

Thirty years ago a single Wright Biplane represented U.S. Army aviation. On the 30th Anniversary of the U.S. Army Air Corps, it is fitting that admiring tribute should be paid to the men whose courage, persistence and faith in flying have inspired the growth of military aviation and made invaluable contributions to the advancement of commercial flying. Their vision and faith in the future of flight are reflected in America's great aerial squadrons of today.



WRIGHT AERONAUTICAL CORPORATION  
Paterson New Jersey  
A Division of Curtiss-Wright Corporation



## 30th Anniversary

(Continued from page 6)

of the high performance air-cooled engine; use of ethylene glycol as a high-temperature coolant, making water-cooled engines obsolete; use of superchargers; research work with a vibration damping mechanism; metal propeller and constant speed controllable pitch prop; aerial photography.

"It is firmly believed that the Training Center represents the ultimate in military flying training," the Air Corps stated. "No better flying course than the one given at the Training Center is known to exist." The first Army flying school was established at College Park, Md., in October, 1909. On June 28, 1922, all primary flying activities were concentrated at Brooks Field, San Antonio, Tex., and advanced activities at Kelly Field. For all practical purposes, except for the name, the Training Center was organized on that date, the Army explained. At present, primary training facilities and the school of aviation medicine are located at 2,300-acre Randolph Field, while advanced activities are at Kelly Field. Counting dependents, the Air Corps says that the total population of the Training Center is about 5,000, Randolph having 3,000 and Kelly the remainder.

The Air Corps Tactical School, whose purpose it is to satisfy the need for trained leaders and staff officers, has been located at Maxwell Field, Montgomery, Ala., since 1931. Officers from other branches of the Army, as well as from the Navy and Marine Corps, are admitted as students. Subjects covered at the school include: air force, attack aviation, bombardment aviation, observation aviation, pursuit aviation, military intelligence, combat orders, logistics, staff duties and signal communications. Maxwell Field also is the home of the Air Corps Board, the function of which is to study subjects referred to it by the chief of Air Corps, and such as it may itself originate looking to the improvement of the Air Corps.

In Jan., 1921, the Air Corps Technical School was moved from Kelly Field to Chanute Field, Rantoul, Ill., and recently part of it has been transferred from the latter site to Lowry Field, Denver, because Chanute lacked a bombing and machine gun range. During its existence, the school has graduated over 10,000 students. "The Air Corps Technical School must provide an adequate number of properly qualified graduates to keep pace with any program involving the expansion of the Air Corps," the War Department explains. "While it is necessary and desirable from time to time to call on civilian schools partially to assist in this training, it must be borne in mind that it is the job of the Air Corps to maintain facilities permanently so that it can quickly and surely expand them to train its mechanics for use in an emergency."

### Asks \$175,000 Damages

A \$175,000 damage suit filed on behalf of A. Djemil Tahir Erk of Istanbul, Turkey, by Helen Sherry, attorney, seeks damages from Glenn L. Martin Co., Baltimore, in U. S. district Court. Action accuses company of canceling an agency agreement during negotiation of a \$2,000,000 contract with the government of Turkey, and it is alleged the company improperly withheld Erk's commissions. Suit requests an accounting of transactions between the Martin company and the Turkish government.

## One of 560 for the Army



Announced recently were contracts amounting to \$19,535,320 for aircraft for the War Dept. under authority of the Army Appropriation Act HR 4630. Of this amount, \$12,872,398 was awarded to Curtiss Aeroplane Div., Curtiss-Wright Corp., Buffalo, N. Y., for 560 Curtiss P-40 all-metal pursuits, as shown here. This supercharged, advanced ship is a single-engine, one-place fighter with retractable landing gear and tail wheel. It is equipped with machine guns synchronized to fire through the Curtiss electric propeller, and oxygen equipment permitting extended flight range in the sub-stratosphere. Performance details were withheld by the War Dept.

## Formations

(Continued from page 1)

Ceremonies commemorating this beginning of the Air Corps will center at Wright Field, Dayton, where the plane was built and where the Air Corps materiel division now is located.

Pioneers in aviation and government officials concerned with commercial, military and Naval aviation will gather at Dayton.

Formations from 11 air stations will fly on the anniversary day. They will leave the following fields.

Langley Field, Hampton, Va.; Mitchell

Field, Long Island, N. Y.; Selfridge Field, Mt. Clemens, Mich.; Hamilton Field, San Raphael, Cal.; March Field, Riverside, Cal.; Barksdale Field, Shreveport, La.; Air Corps Training Center, Randolph Field, Tex.; Maxwell Field, Montgomery, Ala.; Chanute Field, Rantoul, Ill.; Scott Field, Belleville, Ill.; Lowry Field, Denver, Colo.

### 30th Anniversary Issue

The Aug. 1 issue of *Air Corps News Letter* will be devoted to commemoration of the 30th anniversary of Army aviation. A series of specially written articles were prepared for the issue, and another feature will be a series of photographic inserts descriptive of various Air Corps activities.

## Air Corps Has Pioneered in Aviation

From the end of the World War to the present, the Air Corps has pioneered in numerous aviation activities. A few of these important flights and activities, chronologically arranged, follow:

1920, Feb. 27. Maj. Rudolph W. Schroeder established a world's altitude record of 33,000 ft.

1921, Feb. 12. Army Air Service opened the first airway, Washington, D. C., to Dayton, O.

1922, Oct. 6. Lieuts. Oakley G. Kelly and John A. Macready established a world's endurance record of 35 hrs., 18½ min.

1922, Oct. 18. Brig. Gen. William Mitchell established a world's record for speed over a measured 3-km. course of 224.38 mph.

1922, Nov. 4. Lieuts. Kelly and Macready established a world's record for distance with a flight of 2,060 miles, from San Diego, Cal., to Ft. Benjamin Harrison, Ind.

1924, Mar. 17. Four Army Douglas World Cruisers departed on an aerial journey around the world. Two of the planes successfully completed the flight of 27,550 miles in 175 days.

1927, June 29. Lieuts. Lester J. Mailand and Albert F. Hegenberger, Air Corps, landed successfully at Honolulu, Hawaii, after having spanned the distance of 2,400 miles over the Pacific Ocean from Oakland, Cal.

1932, May 9. Capt. Albert F. Hegenberger accomplished the first solo flight entirely by instruments.

1934, Dec. 27. The Secretary of War approved the test of the GHQ Air Force organization, and Lieut. Col. Frank M. Andrews, designated as its first commander, was appointed a Major General.

1935, Mar. 1. GHQ Air Force was officially organized.

1935, Aug. 29. Air Corps engineers made the first flight using the radio compass to control the automatic pilot, thus providing automatic radio navigation.

1936, June 29. Maj. Gen. Frank M. Andrews made a non-stop distance record for amphibian planes by piloting the Douglas OA-5 a distance of 1,425 miles from Porto Rico to Langley Field, Va., in 11 hrs., 9 min.

1937, Aug. 5. Air Corps stratosphere plane, the Lockheed XC-35, made its initial performance flights at Wright Field, O. Being equipped with a supercharged cabin, oxygen equipment was unnecessary.

1937, Aug. 23. Capt. Carl J. Crane and George V. Holloman, Air Corps, and Raymond K. Stout, project engineer, all of Wright Field, made two entirely automatic landings under adverse wind conditions.

1938, Apr. 20. Four officers and 5 enlisted men began instruction at Patterson Field, Fairfield, O., in the operation and maintenance of the autogiro, the first school of this kind established in this country.

## Tampa and Mobile Sites of Army's Southeastern Bases

The Army's Southeast Air Base will be located on a site approximately six miles southwest of Tampa, Fla., and the Southeast Air Depot will be located about one mile southwest of Mobile, Ala., it was announced by the War Dept. in mid-July. Funds for the projects recently were provided by the Supplemental Appropriations Act, 1940, subject to completion of satisfactory negotiations.

The location of the air base site involved "primary consideration of the strategical requirements concerned in the air defense of the south Atlantic coast and of air operations in the Caribbean area," the announcement said.

The Mobile depot "has been located with regard to the storage and distribution of all types of Air Corps materiel, and the heavy repair and maintenance requirements pertaining to the air forces in the southeastern portion of the U. S. and in Puerto Rico and Panama. Accessibility to deep water was an important factor in view of the necessity of serving our air forces in the Caribbean area," it was said.

Expansion program of the Air Corps includes establishment of new bases in Puerto Rico, Panama, Alaska, one in northeastern and one in southeastern U. S., as well as an air depot in the southeast. Decision of the War Dept. on locations of remaining installations will be announced later.

## 11 Air Corps Officers Ferry Training Planes To 9 Civilian Schools

The ferrying of training planes from Randolph Field, Tex., to civilian schools participating in the Army expansion program was completed recently. The civilian schools will give primary training to Air Corps pilots who will complete basic and advanced training at Randolph and Kelly Fields.

Air Corps officers leading flights of planes and their destinations were:

Lieut. D'Ross Ellis, seven PT-13's and Lieut. B. T. Klein, six PT-3's to Spartan School of Aeronautics, Tulsa, Okla.

Lieut. C. T. Edwinton, five PT-3's, and Lieut. S. O. Ross, six PT-3's to Dallas School of Aviation, Dallas, Tex.

Lieut. C. F. Tieman, nine PT-13's to Santa Maria School of Flying, Santa Maria, Cal.

Capt. Walter E. Todd, nine PT-13's to Ryan School of Aeronautics, San Diego, Cal.

Lieut. Cy Wilson, four PT-13's to North Suburban Flying School, Glenview, Ill.

Lieut. Marion Malcom, seven PT-13's to Lincoln Flying School, Lincoln, Neb.

Lieut. Q. Q. Rankin, five PT-13's to Grand Central Flying School, Glendale, Cal.

Lieut. Horace A. Sheppard, seven PT-11's to Alabama Institute of Aeronautics, Tuscaloosa, Ala.

Lieut. G. S. Buchanan, four PT-13's to Parks Air College, East St. Louis, Ill.

The PT-3 is a Consolidated biplane powered by a 235-hp. Wright Whirlwind, R-790. The PT-11 is a Consolidated biplane powered by a Continental R-545, 165 hp. The PT-13 is a Stearman biplane of 215 hp, powered by a Lycoming R-680-5.

### Tucson Plane Burns

A backfiring engine ignited the fuselage and destroyed a plane belonging to Edward G. Boffering at the Tucson, Ariz. airport, July 5. Loss was estimated at between \$2,000 and \$3,000.

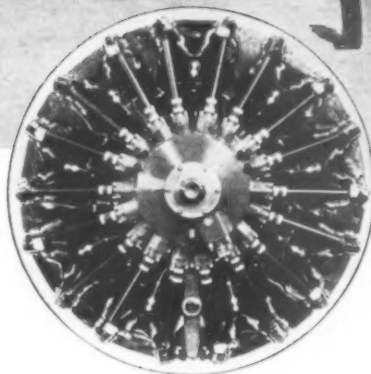




## We Salute the U. S. ARMY AIR CORPS

### Congratulations on Thirty Years of Splendid Progress!

HATS OFF to the United States Army Air Corps—men with stout hearts, keen minds and the spirit of America! May this thirtieth anniversary not only commemorate a noteworthy past but mark the beginning of a brilliant future. We join the nation in salute! Lycoming Division, Aviation Manufacturing Corporation, Williamsport, Pennsylvania, U. S. A.



In the above photograph are seen some two hundred United States Army Air Corps cadets at Randolph Field, Texas, lined up before their Stearman Trainers powered by the Lycoming 9-cylinder, 220-horsepower engine of the Model R-680 Series.

YOU CAN RELY ON  
**LYCOMING**  
50 to 300 H.P.  
 *Engines*

FOR MILITARY TRAINERS, PRIVATE AND COMMERCIAL AIRPLANES

## Private Flyers' Corner



Thousands of persons daily visit the Aviation Building at the New York World's Fair, including the Lycoming exhibit in the light plane section of the private flyers' division. Lycoming's exhibit shown here is featured by the display of three Lycoming engines, the 55-hp. model O-145 and one each of the seven- and nine-cylinder radial air cooled engines. Background illustrates various manufacturing processes in the plant at Williamsport, Pa. In the photo is seen Ray Cowden (center) of the sales dept. pointing out features of the 55-hp. model.

## Fairchild Releases Trainer Details; M-62 Powered by 165-hp. Ranger

Details of the Fairchild M-62 trainer, pictured in AMERICAN AVIATION, May 15, June 15, have been released by Fairchild Aviation Corp., Hagerstown, Md., although the ship has not been presented for type certificate approval. The low-wing monoplane has tandem seating and has steel tube fuselage. Wood fairing and fabric covering are employed on the fuselage except that the top of the fuselage aft of the cockpit is metal-covered. Dual controls are provided with positive push-pull control rods activating elevators and rudder.

Plywood-covered wing utilizes two different NACA airfoil sections. Built-in slots are provided and split flaps, manually controlled, extend throughout the center section. Ailerons are statically and aerodynamically balanced fabric-covered aluminum alloy structures. Tail surfaces are semi-cantilever. Fixed surfaces are mahogany plywood-covered units built up from spruce spars and ribs; movable surfaces are welded steel tube structures covered with fabric. All controls, pulleys, etc. are mounted on ball bearings.

Power for the M-62 is provided by the six-cylinder inverted Ranger 6-410B-2A rated at 165 hp. at 2,450 rpm. Powerplant is inline aircooled and rubber mounted.

Landing gear is cantilever, having vertical motion of 8' with 21" streamline wheels. Tail wheel is steerable through full range of rudder travel and automatically disconnects to become full swiveling for spot turns and hangar handling. Hydraulic brakes are provided.

Two tanks of 25 gallons each are provided, one in each wing, giving the ship five hours' range. Engine-driven fuel pump is provided with auxiliary wobble pump which can be operated from either cockpit.

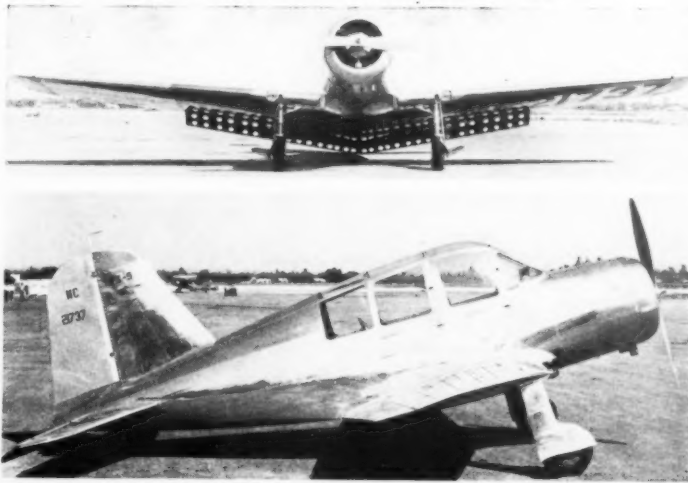
Approximate specifications as sup-

plied by the manufacturer follow:

Span	36 ft.
Length	28 ft.
Height	6 ft. 8 in.
Wing area	200 sq. ft.
Weight empty	1,637 lbs.
Gross weight	2,300 lbs.
Useful load	663 lbs.

Company announcement said: "At this time we are unable to quote either prices or delivery schedules, and we hope that all interested persons will realize that until we can definitely plan our production set-up, any prices or deliveries quoted would be approximate." This information is expected to be released late in August.

## Trainer Resembles Harlow PCJ-2



Two views of the Harlow PC-5 trainer. Top photo shows ship with 23.6 sq. ft. of flaps exposed.

## PC-5, All Metal Trainer, Completed By Harlow; Undergoing Test Flights

Announcement of the completion of the Harlow PC-5, low wing, all metal trainer, now undergoing preliminary test flights, was made in mid-July by J. B. Alexander, president of Harlow Aircraft Co., Alhambra, Cal. In detail of construction the new plane bears a close resemblance to the PCJ-2 private transport recently produced by Harlow, pictured and described in AMERICAN AVIATION, Mar. 1, 1939.

The PC-5, a two-place tandem ship, is equipped with electrically operated retractable landing gear, electrically operated flaps and adjustable pitch propeller. Powerplant is a Warner Super Scarab 50 rated at 145 hp. at 2,050 rpm.

Specifications of the new trainer follow:

Span, 35 ft. 9 1/2 in.; length, 23 ft. 4 in.; height, 7 ft. 8 in.; wing area, including ailerons, 185 sq. ft.; aileron area, 13 sq. ft.; flap area, 23.6 sq. ft.; empty weight, 1,640 lbs.; useful load, 639 lbs.; maximum payload, 215 lbs.; gross 2,279 lbs.; baggage allowance, 25 lbs.; design load, 2,600 lbs.; wing loading, 12.31 lbs. sq. ft.; power loading, 15.71 lbs. sq. ft. fuel capacity, 34 gal.; oil capacity, 4 gal.

Trainer is available with a Hartzell or Curtiss Reed fixed blade or with Electromatic controllable pitch propeller.

Estimated performance figures follow: Maximum speed, 170 mph.; cruising speed (sea level), 153 mph.; landing speed (flaps), 45 mph.; service ceiling, 16,500 ft.; rate of climb (sea level), 850 ft. min.; cruising range, 600 mi.

Fuselage is all metal semi-monocoque, 24st Alclad sheet riveted to rings and longitudinal extrusions. Additional construction details follow: Wing—all metal, 24st Alclad sheet riveted to ribs and extruded stringers; single shear member NACA 23012 airfoil. Fin & stabilizer—same as wing. Elevators & rudder—fabric covered. Ailerons—all metal. Flaps—split trailing edge type, single spar. Tabs—all metal, controllable on elevators; fixed on rudder and aileron. Tail wheel—non-retracting;

automatically locks when flaps are extended; steerable when flaps are retracted; automatically releases for 360° swivel when ground crew pushes sideways on tail. Standard equipment—battery, navigation lights, landing lights, generator, starter, radio receiver.

Instruments include altimeter (2), compass (2), tachometer (2), air speed indicator (2), fuel gauge, engine gauge unit—fuel pressure, oil pressure, oil temperature, voltmeter, turn & bank indicator (2), rate of climb indicator (2), clock, wheel position warning lights & horn, wheel position indicator, flap position indicator.

### Represents Des Moines Service

A. W. Cook, Iowa representative for Piper Aircraft Corp. of Lock Haven, Pa., and Culber Aircraft Corp., Columbus, O., distributors for Dart planes, has been named Iowa district sales manager for Des Moines Flying Service.

### Feminine Distinction

Barbara Kibbee, a graduate pilot of Ryan School of Aeronautics who is flying for Troy Air Service, Troy, N. Y., is believed to be the only girl pilot to obtain a new instructor's rating from the CAA.

## "We've Never Been Disappointed in a PARKS Graduate"

Bruce Braun, right, vice-president in charge of operations, Chicago & Southern Air Lines.



THUS Bruce Braun, widely known aviation executive, sums up his line's experience with Parks trained men. He goes on to say that among Parks graduates employed by Chicago & Southern in various capacities, "All have lived up to your recommendations."

Because of Parks training methods and because of the high standards maintained, graduates are winning recognition and advancing to positions of responsibility throughout the aviation industry.

A Parks recommendation of a Parks graduate is your assurance of proper qualifications. That's why it will pay you too to consider Parks when you are thinking of expanding your own personnel. A letter to Oliver L. Parks, President, will bring further details.

**PARKS AIR  
COLLEGE, Inc.**  
East St. Louis, Illinois

## THE WACO Tricycle IS 69% SAFER

● The Waco "Tricycle" is ideal for private or business ownership. Its unique design makes flying easier and safer than driving! Its tricycle gear eliminates the characteristics that cause 69% of take-off, landing and taxiing mishaps!

It carries four persons at high speeds in the luxury of a fine automobile—without the discomforts of highway travel! See your local dealer or write direct for specifications and terms.

THE WACO AIRCRAFT COMPANY, TROY, OHIO

Let the Young Fly Sooner... and the Old Fly Longer



Full-coverage insurance on new Wacos at 9% percent.

## Navy and Army Flyers to Participate at Air Races, Big Battles Looming

Both the Navy and Army will participate in the 1939 National Air Race program to be held Sept. 2-4 at Cleveland Municipal Airport, it was announced on July 18. The Navy Dept. has notified the management that it will send the 18-plane Fighting Squadron 4 from the USS Ranger, with a full complement of transport and escort ships. Army participation has been authorized, but details had not been announced.

Advance information indicates that a battle between Jacqueline Cochran and Frank W. Fuller will feature the Bendix Trophy Race, Sept. 2 (\$27,500). Fuller has been conditioning his Seversky fighter, and it is believed Miss Cochran will depend on her Seversky fighter again. Arlene Davis has announced that she is in the market for a plane "to win the Bendix race." She has corresponded with two manufacturers about constructing such a plane for delivery before the race. Another possibility is Wilbur Shaw, current Indianapolis Speedway champion, who is expected to have a fast Vultee available for the Los Angeles-Cleveland dash.

The Greve Trophy Race, Sept. 3 (\$20,000), "looks like the competitive

gem of the program because of the closely bunched speed possibilities of the leading entries, all Menasco B6S4 powered," the management announced. Tony Le Vier and Art Chester probably will headline the 200-mi. battle. Major changes have been made in Le Vier's Schoenfeldt "Firecracker" and Chester's "The Goon." Two new ships which will be seen in the race are the Keith-Rider "8-Ball" and the Folkerts which Clayton Folkerts will enter.

Col. Roscoe Turner's performance in 1938, both in qualifying and his record breaking 283-mph. victory, makes him the stand-out for the 1939 renewal in the Thompson Trophy Race, Sept. 4 (\$37,500). Added to this is the report that Turner carries 25 mph. more speed this year. Both Chester and Le Vier are expected to provide competition for Turner's Wasp-powered ship. With the cubic inch restriction off for the first time, the race is wide open, and the 300-mph. average is "a real possibility."

Time trials for closed course events start on Aug. 28, and rules give considerable advantage to early qualifiers. With the Thompson qualifying speed stepped up to 240 mph. and the Greve to 220, actual racing events will begin on Aug. 28.

## National Air Progress Observance Planned

A nation-wide "Air Progress on Review" program reaching the public through local programs in at least 1,000 communities between Sept. 11 and 24, has been announced by Charles F. Horner, president of the NAA.

"With the spectacular growth of aviation in recent months, each of the aviation industries, and each of the federal agencies in the field of aeronautics, has a story of interest to the public," Horner said, pointing to the 25,500 miles of federal airways, the 11,000 civil airplanes, the 23,000 pilots and the 3,000,000 passengers trans-

ported annually as evidence of the industry's present maturity.

To bring aviation's story to the people, committees are being formed throughout the country, and governors, mayors, and civic organizations are actively cooperating, Horner stated. The CAA, Army Air Corps, Bureau of Naval Aeronautics, Weather Bureau, Office of Education, and the Bureau of Air Mail of the Post Office Dept. already have declared willingness to cooperate.

## Fairchild Appoints Brown

Archibald M. Brown, former sales agent for Beckwith Havens, Roosevelt Field Fairchild distributor, has been appointed sales manager of Fairchild Aircraft Corp., Hagerstown, Md.

## Altitude Student

Miss Grace Huntington, 26-year-old daughter of Mrs. Harwood Huntington of Los Angeles, lately has been making a study of altitude flying and recently established an altitude record for landplanes of the first category when she flew a 1939 Fairchild 24 to 18,770 ft. First category includes planes powered by motors having cylinder displacement between 397 and 549 cu. in. The stock 24 was powered by a Warner 145-hp. plant having cylinder displacement of 499 cu. in. Ship was the property of Pacific Aircraft Sales Co., western Fairchild distributor, who sponsored the flight.

Arrangements were handled by Norman Larson, shown with Miss Huntington, one of the company's partners, at Union Air Terminal, Burbank, Calif. Flight was made under the supervision of NAA Representative Larry Therkelsen. Time required to climb to 18,770 ft. was 55 min., total flying time including descent of the Aviation Country Club of Southern California. Shortly after the altitude flight she resumed her activities as a writer in the Walt Disney studios.



## CURRENT AVIATION HISTORY

Vol. II of AMERICAN AVIATION (June 1, 1938-May 15, 1939 Inclusive)

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**AMERICA'S GREATEST SPORTS EVENT**



## NWA Appointments

Appointment of a chief accountant and an assistant treasurer for Northwest Airlines has been announced by E. I. Whyatt, secretary and treasurer



**Gilsdorf Holsted**

of the line. L. S. Holsted, new assistant treasurer, formerly was chief accountant. A graduate of the University of Minnesota, he has been employed by NWA for the last nine years. He is married and lives in St. Paul. Robert E. Gilsdorf has been made chief accountant, having been with the line for the last nine years. A graduate of College of St. Thomas, he is married and resides in St. Paul.

### Blank at New MCA Post

Omaha, Neb.—K. V. Blank, former district sales mgr. here for Mid-Continent Airlines, has been transferred to Kansas City headquarters where he will manage the reservation control dept. Succeeding him is Eston Shumate, former district sales mgr. at Tulsa.

### New Chicago Office

J. A. Thomas, central manager of traffic and sales for TWA in Chicago, reports that TWA and Chicago and Southern Air Lines have taken 3,000 square feet of ground floor space at 37 S. LaSalle St., Chicago, for an additional joint sales office serving the Chicago financial center.

## The Smallest, the Shortest, the First



What is believed to be the world's smallest gasoline tank truck and airport tender has been placed in service on what is said to be the shortest scheduled air mail route in the world. AM 2001, which is the first scheduled autogiro air mail route in the world. A specially outfitted midget gasoline truck of 50 gallons was the Gulf Corp's answer to Eastern Air Lines' need when the latter on July 6 began flying the mail from the roof of Philadelphia postoffice to Camden Airport, six miles away. The 100,000 sq. ft. postoffice roof is equipped with two-way radio station, weather bureau and aircraft maintenance facilities. With the addition of the refueling truck, a replica of larger Gulf tenders, the roof is now equipped with all needed aviation facilities.

### EAL Promotes O'Connor

Daniel A. O'Connor, former Jacksonville district traffic mgr. for Eastern Air Lines, has been promoted to the position of southern division traffic mgr. for the line with headquarters at 304 W. Adams St., Jacksonville, according to recent announcement by Paul H. Brattain, vice president and general traffic mgr. Following cities of the southern division are under O'Connor's supervision: Miami, Jacksonville, Savannah, Vero Beach, Daytona Beach, West Palm Beach, Orlando, Tampa and Tallahassee.

### Omaha Commissary Opened

United Air Lines has opened its fifth commissary on the line at Omaha in charge of Clarence Laubham, formerly an assistant in the Chicago commissary. Other commissaries are at Oakland, Portland and Salt Lake City.

## Talman Appointed TWA Treasurer

E. Lee Talman, 34, of Chicago has been appointed treasurer of TWA with headquarters in Kansas City, it was announced July 10 by Jack Frye, president of the line. Talman succeeds Frank G. Wilson, former vice-president, treasurer and secretary, who resigned as treasurer but remains as vice-president and secretary.



**Talman**

"In appointing Mr. Talman as treasurer of TWA, the company is rounding out its organization and solidifying its expansion program inaugurated last spring," Frye said.

Talman served as assistant treasurer of Bendix Aviation Corp. from 1929 to 1937. After being graduated from Northwestern University in 1926 he was associated with J. L. Jacobs & Co., Chicago, until 1929.

### Purdue Wins United Trophy

Winner of United Air Lines' safe flying trophy at the annual national intercollegiate flying club meet held at Kenyon College, Gambler, O., was Purdue University's team composed of Ray Chevedden and Bob White. Second place was won by Duke University; third, by the University of California. This was the first presentation of the trophy which will be an annual award and will become the permanent possession of the club winning it for three successive years at which time another trophy will be provided by United.

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## 30 Ships, 70 Persons Take Part in SPA's Annual Summer Cruise

With approximately 30 ships and more than 70 members and guests taking part, the annual summer cruise of the Sportsman Pilots Association converged on St. Jovite, 80 miles north-west of Montreal, Que., on Sat., July 15, after the eastern and western groups had rendezvoused the night before at Wings Field, Philadelphia, and Wayne County Airport, Detroit.

The cruise contests, planned by Cass Hough, Bisbee Warner and Jack Burnham, president of the association, involved a combination of navigating and mathematical calculating, and resulted in the following winners: Eastern leg—Ignatius Sargent, 1st; C. H. Warrington and A. H. Stackpole, tied for 2nd. Western leg—Louis Huck, 1st; C. A. Hinsch, 2nd. Trophies for the winners were awarded at the banquet Mon. evening, July 17, following a cocktail party given for visiting pilots by Mr. and Mrs. Tom Wheeler of St. Jovite. Wheeler is Canadian governor for the organization.

West Virginia had the honor of first and last arrivals, both showing off from Charleston and arriving at the destination in early and late afternoon of July 15. J. B. Pierce landing in his Beechcraft shortly after noon and David Giltinan barging in shortly before dark in his Piper Cub.

Tennis, golf, fishing, horseback riding and hangar flying occupied the party throughout the weekend, with the official banquet culminating the planned program on July 17. Many stayed on for the remainder of the week, the lineup of planes dwindling by twos and threes as the days passed.

New officers of the association elected at St. Jovite include:

Henry King, Los Angeles, president; Larry M. Schmidlapp, Cincinnati, 1st. vice president; H. T. Cole, Atlanta, 2nd vice president; C. H. Warrington, Washington, secretary-treasurer.

Among those who flew in from all parts of the country for the cruise were: Mr. and Mrs. C. M. Latt, Mr. and Mrs. R. C. Certel, Mr. and Mrs. Ignatius Sargent, John Blondell, Mr. and Mrs. H. L. Kirkpatrick, Mr. and Mrs. H. C. Ealos, Mr. and Mrs. C. H. Warrington, Henry G. Warrington, Mr. and Mrs. W. M. Packer, N. E. Meador, Cass S. Hough, Mr. and Mrs. J. B. Salzman, Philip Kling, James Hunt, Mrs. Charles Durant, Louis Huck, Mr. and Mrs. Charles A. Hinsch, Mr. and Mrs. Larry M. Schmidlapp, William Mashburn, Mr. and Mrs. E. W. Kistner, Lee H. Smith, J. B. Pierce, Lee N. Brutus, David Giltinan, Mr. and Mrs. E. Bisbee Warner, Miss Marie Warner, Mr. and Mrs. A. W. Skilling, J. Wesley Smith, William F. Slaymaker, Mr. and Mrs. Edgar S. Davis, William Olson, W. D. Toulman, A. H. Stackpole, Nobe Frank, Bob Leroy, Mr. and Mrs. H. F. Wood, T. W. Miller, Jack Burnham, Charles J. Beck, Richard Bircher, C. Hollister Judd Jr., Henry Little, Nick Morris, John Story Smith, John C. Simpson, Mr. and Mrs. Donald Luscombe, Mr. and Mrs. Carl Howard.

### Plans School, Charter Service

Floyd Hansen, Cache valley flyer, announced July 9 that he will conduct a flying school at Logan-Cache airport, Logan, Utah, and give charter passenger service to nearby points.

## On SPA Cruise



1. Charles A. "Bunny" Hinsch of Cincinnati. 2. Jack Burnham, Paoli, Pa., SPA president. 3. Tom Wheeler, Canadian SPA governor and host at St. Jovite. 4. Bisbee Warner of Wayne, Mich. 5. Left to right: Mrs. Harry Wheeler, J. A. Wilson (chief of Canadian civil aviation), Mary Lou Wheeler. 6. David Giltinan and Daisy Kirkpatrick (former president of the 99ers). 7. Nobe Frank, left, and Bob Leroy. 8. Mr. and Mrs. "Ig" Sargent. 9. Harry Kirkpatrick and his sword-fisherman's bonnet. 10. Mrs. "Bunny" Hinsch. 11. Joe and Myrna Salzman, Detroit. 12. Mrs. Eddie Davis of Trenton, N. J., being greeted by Harry Wheeler.

### Utica Service Starts

A new service, the Clawson-Pickard Flying Service Inc., has been started at Utica, N. Y., airport with Chester F. Pickard and Ernest Clawson piloting the Luscombe and Stinson planes which are to be used for training and for chartered trips. John M. Burton of Gloversville is secy.-treas. of the service.

### Safair to Distribute Cubs

Safair Inc. of Roosevelt Field, Mineola, L. I., has been designated distributors for Piper Cubs by Al Bennett, president of Bennett Air Service, and W. B. St. John, sales mgr. for Piper Aircraft Corp., Lock Haven, Pa. Territory covered by distributorship includes Long Island and metropolitan New York, O. P. Hebert, Safair president, announced.

### Francis Starts Ground School

Gerald Francis, operator of a flying school at Bishop Airport, Flint, Mich., has organized a ground school with Sam Burns, recently resigned as Flint agent for Pennsylvania-Central Airlines, as instructor. Burns has operated a ground school at Saginaw and will return to that city to assist with PCA operations in an unofficial capacity. He also will operate a flying school owned by Ralph Berry. Replacing Burns temporarily at Flint for PCA is Edgar Penny.

### Operating Becker's Airport

Becker's Airport near Buffalo, N. Y., is being operated by Philip Miraglia, who has operated Phil's Flying Service for a number of years at Consolidated and Buffalo airports.

## GLIDER FIELD ACQUIRED

Chicago Council Leases 116-Acre Tract Exclusively for Member Clubs

The Chicagoland Glider Council, composed of 15 glider clubs in the Chicago area, has acquired lease on a 116-acre tract between Wheaton and Glen Ellyn for an exclusive glider field, the only one within a radius of 400 miles, according to Robert F. Blaine, secretary of the council. Nearest airports to Chicago devoted entirely to motorless flying are the ones at Detroit and Frankfort, Mich. Dedication ceremonies are to be held Aug. 26 and 27 at the field, Blaine said.

## Alabama Building Airports

Airport construction projects estimated to cost more than \$1,200,000 are receiving attention at this time from the Alabama Aviation Commission, and a state-wide air marking project begun in July will touch 300 towns in the state, according to information from Asa Rountree Jr., state director of airfield development. Approved WPA applications for \$915,737 of the above amount already are on hand. New program included 23 towns and is exclusive of present active projects at Alexander City, Birmingham, Brewton, Dothan and Mobile. Additional funds for Alexander City, Dothan and Jasper, amounting to \$196,954, have been cleared.

## Air Group Recognized

Full recognition of the Licensed Airmen of America, Los Angeles, Cal., as a national division of the NAA has been granted, according to Charles F. Horner, NAA president. The organization, consisting of licensed pilots, mechanics, and others holding CAA certificates, is non-union, non-sectarian and non-profit. With its newly granted authority, the Licensed Airmen of America group plans to form NAA chapters throughout the country, restricting membership to men having CAA certificates.

## Free Idaho Field Open

A landing field on the middle fork of the Salmon River in a remote section of central Idaho has been announced available for use without charge by State Land Commissioner C. Van Clark. The field, developed by Milt Hood, ranch operator, will be leased to the state bureau of aeronautics, and landing fees charged in the past eliminated, said Clark.

## A Few Copies Remaining Gill Robb Wilson's

Aviation Poems

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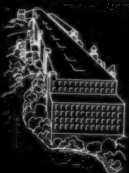
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## 10th Annual National Soaring Contest

Staff photos taken at  
Elmira, N. Y., June 24—July 9



1. Bob Stanley, second-place winner and holder of new U. S. altitude record of 17,264 ft. 2. Bob Platt, of the NACA. 3. Chet Decker, who became 1939 champ by piling up 3,020 points. 4. John Robinson, one of California's best sailplane pilots. 5. Lewin Barringer who had been active in the Soaring Society of America for many years. 6. Jack O'Meara, distributor for Harlow Aircraft, who was the first pilot to soar at Elmira 10 years ago. 7. A group of sailplane enthusiasts surround Bob Stanley's "Nomad."

8. Earl Southee, of the CAA's private flying development division, who has charge of the glider training program. 9. August Raspet, who is experimenting with the use of thermo-couples on sailplanes to locate thermals. 10. Arthur "Larry" Lawrence, left, chairman of the contest committee, talks things over with Emil Lehecka, 1938 champ. 11. Bob Buck, left, TWA co-pilot and gliding enthusiast, poses with Bob LeRoy of Harrisburg. 12. Col. A. H. Stackpole, associate editor of AMERICAN AVIATION, prepares to go aloft with Lew Barringer. 13. Harvey Stephens, motion picture actor, brought his sailplane to Elmira for the meet. 14. Congressman W. Sterling Cole (R., N. Y.), left, and Bob Stanley.

15. Lt. Col. Robert Olds, left, commanding officer, 2nd Bombardment Group, is greeted by Maurice Waters, general manager of Elmira Area Soaring Corp. 16. Unique tail design on Bob Stanley's "Nomad." 17. Don Hamilton, Washington, D. C., pilot, and Mr. Rathbone of Elmira return from a flight of over four hours. 18. Showing how the boys disassemble their sailplanes for transportation purposes. 19. Wreckage of Stanley's sailplane, which lost a wing at 2,500 feet. Aided by the new tail design, the craft settled slowly and was not damaged badly. 20. Two of the sailplanes entered in the contest. 21. The Soaring Society's two-place "flying laboratory," on the right, about to take off.





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## Fortnightly Review

(Continued from page 1)

the poundage and mileage credited to a mail schedule. Thus the carrier would be paid for all mail carried. The hitch in this system came, however, when the total mail poundage carried exceeded the maximum pay limit which had been established, the net result being that large quantities of mail were actually carried free of charge by the carriers. This situation still exists although the Civil Aeronautics Authority evidently intends to put a stop to a system which would be very silly if it wasn't so economically serious to the carriers.

The carriers have every right to expect payment for all air mail carried and by the same token the public has every right to expect the Post Office Department to purchase mail transportation on every available airline schedule. The public buys air mail stamps at a premium because it wants the fastest possible delivery. It seems only logical, therefore, that mail should be carried on all schedules and that payment should be made accordingly. We believe it most timely that the Authority has taken this step in the case of Northwest Airlines because the net result will not only mean more equitable payments to the carriers but will open the way for more frequent air mail service for the public. Of course the Post Office Department may now find it "convenient" to reduce the number of mail schedules but the Authority anticipated this when it said quite plainly that such a move "would allow raising of a question relative to the adequacy in the interests of commerce, and the national defense of the remaining service."

A general abolition of all weight-credit schedules and replacing these with a general system of payment for all mail carried on all schedules would, in our opinion, be a constructive move beneficial to industry and public alike. It is but a logical step in the inevitable trend toward all first class mail by air. The rigid pay schedule plan has had its day and its disadvantages are all too well known. So much importance has been placed on the obtaining of additional pay schedules that the whole business has revolved about political pressure and each year the Congressional appropriations committees have been besieged with demands for an additional pay schedule for this or that company. This is no way to provide the public with adequate air mail service. Let the Post Office place mail on every available schedule and pay accordingly. The public wants the air mail and is willing to pay for it. Let the government purchase the transportation space in the most efficient and expeditious manner possible without the hokus pokus of complicated "weight-credit" trips which permit the airlines to carry air mail gratis.

## Fast Start

THE other day it was our pleasure to pay a visit to Trans-Canada Air Lines and to take a brief flight from Lethbridge to Edmonton and return. It was also our pleasure to observe the acceptance of this latest trans-continental airline by the traveling public of Canada. Within

a few months Trans-Canada has built up a load factor which must be the envy of many a U. S. operator. We don't have the figures at hand, but if the full ships we saw are any indication, Trans-Canada has achieved immediate popularity. What impressed us most was the matter-of-fact way in which the airplane is being used by "just ordinary folks." It isn't luxury traffic by any means. The planes are being filled by men and women of the day coach calibre and this should be a satisfying feeling for those in charge of the airline.

Of course we did discover one reason why Trans-Canada was destined to attract passengers from the start. If you have ever traveled over Canadian highways (west of Winnipeg particularly), you soon discover that there was only one medium of travel before Trans-Canada and that was the railroad. In this country our fine surfaced highways are definitely a competitive factor to the airplane. But in Canada one must be as much an adventurer to travel by automobile as the motorist was in this country fifteen and twenty years ago. The dust is something terrific and there probably aren't more than 300 miles of surfaced highways in all of the great expanse west of Winnipeg. A business man would think more than twice before making calls in an automobile, while pleasure driving just isn't possible.

For this reason Trans-Canada has only the railroad as a competitor and Canadian railroad schedules are not noted for their speed. Thus Trans-Canada is getting short haul business of a type which requires more time to develop in this country. The airplane in Canada is not a supplementary form of travel by any means; it is just about the only means of getting anywhere, that is, with any comfort and speed. If Canadian roads aren't hidden in dust, they are covered with snow, while the airplane lifts one high above all of the discomforts of surface travel. By the time Canada gets around to paving the roads the populace will be so accustomed to travel by plane that the chief highway users will be those from the U. S. trying to find out what Canada looks like behind that cloud of dust.

It is with a sort of informal military efficiency (if that explains anything) that Trans-Canada handles its operations. One can't help but be favorably impressed at such stops as Lethbridge, for example, where east and west bound planes make connections with the shuttle service to Canada's air terminal of the north, Edmonton. Servicing is handled with dispatch, the personnel are on the job, and there is a neatness and cleanliness about everything which is bound to have an excellent psychological effect on passengers. At Lethbridge the efficient manager is A. N. Westergaard, a veteran pilot for Canadian Airways, who is typical of the well trained and experienced men which Trans-Canada has hired. News that Trans-Canada is inaugurating plane-to-ground and ground-to-plane commercial radio service to all passengers without any charge is another evidence that the airline is on its toes. Being so closely identified with the government, the airline has many privileges and advantages not available to privately-owned U. S. airlines, this radio service being one, while at the same time Trans-Canada has benefitted materially from the progressive airline operations made possible by private enterprise in the United States. Our neighbors to the north deserve high commendation for the auspicious start which its new airline has made.

## The New Travel Era

A FEW issues ago following the demonstration flight of the four-engined 42-passenger Douglas DC-4 to the east coast, we stated as a news fact that the era of large four-engined aircraft has arrived, regardless of any purchases of the particular manufacturer's model. We made these statements on the basis of public enthusiasm for the largest landplane so far built in this country. The DC-4, as a prototype of the large airplane, is more than an airplane—it is transportation in the real sense of the word. Despite some skeptics in the east and despite a certain amount of competitive propaganda of a type of which the industry could hardly be proud, we were firmly of the belief that larger airplanes were not only a perfectly sound and logical development of air transportation, but that the public would demand them. Not only that, but the public would use them much more readily than they have used the present equipment.

United Air Lines has announced purchase of six of the Douglas DC-4 planes and will provide each with 52 seats instead of 42. It is to be expected that other companies will follow in the near future with orders for the DC-4 or similar equipment. We are pleased that W. A. Patterson, United's wiry and far-seeing president, has had the courage of his convictions and has taken this important step. Mr. Patterson has been closer to the development of the DC-4 than any airline executive; it is, in fact, his pet project. It will be two years before these huge planes will be in operation, but we are confident that public acceptance will not be lacking when that time comes.

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## Sportsmen Flying

WITH the successful completion of their annual summer cruise, The Sportsman Pilots Association continues its unbroken record of many years and many millions of miles of flight without a serious accident of any kind.

This should be a matter of interest not only to the Civil Aeronautics Authority but to the public in general, for in the past misinterpretations have been placed on so-called "sport flying" because statistical data on accidents has lumped all non-scheduled accidents in one category and no differentiation has been made between the type of flying accomplished by SPA and similar groups and that of students and neophyte solo pilots.

Every cruise of the SPA, northbound in mid-summer and to warmer climes in mid-winter, brings pilots and ships from many different states to a rendezvous from which the cruise contest is initiated. These contests, incidentally, are not speed contests as such, but involve a test of the navigating skill of the participants, a test which all members agree is an incentive to a more careful adaptation of flight plans on other cross-country trips.

All in all, the aggregate flying of private pilots in the United States totals mileage and hours far beyond the conception of most observers. And the fact that it is safe flying, and that such organizations as the SPA contribute to the safety record of the country, is a point that should not be overlooked by the statistical experts.

—A. H. S.

## Aero Bookshelf

**WEATHER GUIDE FOR AIR PILOTS**, by Elbert Lee Eaton. Ronald Press Co., New York City. 70 pp. \$2.

The author, an aerographer with the U. S. Marine Corps, explains that his book "carries as its goal the explanation of the weather field in as simple a manner as possible." The guide, presented especially for student aviators and pilots, together with other interested persons who do not have time to make a detailed study of weather, aims first to outline the essential principles briefly and then applies the basic information to the airman's everyday problems.

Eaton's book contains chapters on (1) the relative functions of the atmosphere, water vapor and temperature; (2) winds, cyclones, anticyclones, and an introduction to air mass and frontal analysis; (3) particular hazards to aviation; (4) clouds; (5) weather services offered by the Civil Aeronautics Authority and the U. S. Weather Bureau, and (6) climatic characteristics of various sections of the U. S.

## AFS TO ASK ROUTES

Indicates Intention to File Applications for Five New Lines

Airline Feeder System, which recently was denied a "grandfather" certificate by the CAA, indicated on July 14 that it would shortly file applications with the Authority on several new routes.

Routes listed by AFS were as follows: Albany to Syracuse via Utica; Cincinnati-Jacksonville via Lexington, Tri-Cities, Tenn. (Johnson City, Kingsport, Bristol), Asheville, Spartanburg, Augusta; a circular route from the Tri-Cities via Winston-Salem, Greensboro, Raleigh, Norfolk, Richmond, Lynchburg, Roanoke and the Tri-Cities; Norfolk-Albany via Atlantic City, Newark, North Beach Airport, Bridgeport, New Haven, Hartford, Westfield; Syracuse-Atlanta, via Elmira, Williamsport, Kylertown, Pittsburgh, Parkersburg, Charleston, Tri-Cities and Knoxville.

On all routes, Airline Feeder intends to request mail, passenger and express certificates.

## Cheyenne Employees Get Raise

Cheyenne, Wyo. — Apprentices and helpers employed by United Air Lines at the shops here have been granted an increase in salary which will amount to about \$7,500 yearly for the group of 165, according to William P. Hoare, base supt.

## Obituary

**JOHN AUGUST ROSE**, 33, one of six American pilots who recently began flying for KLM (Royal Dutch Air Lines), died at Scheveningen, the Netherlands, on July 2 of injuries received in a fall on the stairway of a hotel. Rose formerly was a TWA pilot.

**FRANK G. TINKER JR.**, 29, graduate of Pensacola and a flyer for the Loyals in the Spanish war, died June 13 in Little Rock, Ark. His death was held a suicide. Tinker was born July 14, 1909 at Gueydan, La., was graduated from Annapolis in 1933, and completed work at Randolph field after six months, being transferred to Pensacola. Leader of a squadron in Spain, he was credited with bringing down eight planes.

**CAPT. WILLFRED G. MOORE**, 43, World War aviator, test pilot and aviation and radio writer, died July 14, near his home in Winnetka, Ill. He was author of the "Howie Wing" radio serial, and previously was co-author of "Air-Adventures of Jimmy Allen." Following the war he was sales manager of Inland Aircraft Co., Kansas City.

**MRS. WILLIAM HORNER**, 84, mother of Charles F. Horner, chairman of the Nebraska Aeronautics Commission, died recently at Kearney, Neb., following a long illness.

## More CAR Violations, Fines Announced

More violations of the Civil Air Regulations, together with compromise fines accepted, were announced by the Civil Aeronautics Authority on July 19.

**W. E. Arkwright**, El Monte, Cal., flew a plane on a civil airway below the minimum altitude prescribed, and at the time did not hold a valid pilot certificate, becoming subject to a fine of \$1,000 for each violation. His offer to compromise any civil penalties for \$50 was accepted.

**Hugh Ernst Jr.**, Hollywood, Cal., flew on a civil airway without a valid pilot certificate. Subject to \$1,000 fine, his offer to compromise for \$25 was accepted.

**Glen E. Courtwright**, Lincoln, Ill., flew on a civil airway without a valid pilot certificate. Subject to a \$1,000 fine, offer to settle for \$25 was accepted.

**John L. Harper**, Sharpesville, Pa., flew an uncertificated plane on a civil airway, carrying a person other than a certificated instructor, and gave flying instruction without having a valid instructor rating. Subject to \$1,000 fine, he settled for \$100.

**Robert E. Slover**, Tampa, Fla., navigated a plane on a civil airway at an altitude below the prescribed minimum for flying over a congested area. Settled for \$50.

**Charles E. Sellers**, Austin, Tex., permitted his plane to be flown on a civil airway by a person not holding a valid pilot certificate. Subject to \$1,000 fine, he settled for \$50.

## Hooker Released

Capt. Bill Hooker has been released as manager of North Beach, New York's municipal airport.

## Col. Gorrell Lauds Authority; Hits at "Misinformation"

That the CAA has been able to perform its duties with only a few more employees than the old Bureau of Air Commerce "is one of the most notable achievements in the recent history of our government," according to Col. Edgar S. Gorrell, president of the Air Transport Association, in a speech given July 19 before the Southwest Chamber of Commerce Secretaries' School, Dallas.

Hitting at "misinformation as the bane of aeronautics," Col. Gorrell stated that "for some inexplicable reason, mis-statements of fact concerning aeronautics and those connected with it can be more easily spread and are given more persistent currency than is true in the case of any other industry."

Commenting on the "Saturday Evening Post" (June 24) quotation that the CAA has more employees than all the airlines, he said, "The airlines of this country have over 13,500 employees. One airline alone has over 4,250 employees. But this spring the total number of employees of the CAA was only 3,282. Nor is it fair to imply that the Authority's duties bear relation only to the regulation of the airlines. The Authority has many duties besides that—duties of greater diversity, perhaps, than those imposed upon any other single governmental agency."

"The Authority regulates some 20 or 25 airlines, and when it explores the application of its statute to our Territory of Alaska it may find that it has anywhere from five to 15 additional airlines on its hands. . . In addition to these airlines, the Authority must regulate the operations of 1,527 charter and fixed-base airplane operators, whose total annual business, in passengers and property carried, equals the total business of the scheduled airlines. Furthermore the Authority is charged with overseeing 153 certificated repair stations, 33 certificated aviation schools, about 100 aircraft manufacturers, and often the activities of some 1,700 firms engaged in one or more phases of the aeronautical industry."

Col. Gorrell pointed out that the CAA also must regulate 10,724 certificated civil aircraft, 1,047 uncertificated aircraft, 36 certificated gliders, 169 uncertificated gliders, 62,326 pilots (of which only 1,420 are airline), 221 glider pilots, 10,005 certificated mechanics and 1,021 certificated parachute riggers, ground instructors, traffic control-tower operators and dispatchers.

Responsibility of the Authority also extends to 95 radio broadcasting stations, 233 radio range stations, 82 radio marker beacons, 34,334 miles of teleprinter service with 333 stations, 1,803 revolving beacon lights, 213 flashing beacon lights, 273 lighted intermediate landing fields, and 24,249 miles of lighted airways, Col. Gorrell stated.

"Therefore, unmerited and unfounded

## C. R. Smith's Full-Page Ad Predicts 250,000 Passengers a Month

In a full-page institutional advertisement which appeared in nine newspapers in six cities during the week of July 22, C. R. Smith, president of American Airlines, predicted that within a few years his company alone will be carrying 250,000 passengers per month.

The advertisement, latest in American's series, was entitled "It's Happening Again," and pointed to the dubious attitude of the public when the steamboat, the telephone and the radio were introduced. "We may say: 'If those things had happened in our time we would have recognized their value without hesitation,'" Smith said. "Maybe so, but we are seeing today the growing utilization of an American invention—the airplane—which will have far reaching effects upon our business and social life, equalling any other in the history of our country."

"It means that 'It's Happening Again'; that the utilization of invention is again forming the basis for a great American industry; that air transportation is the most rapidly growing industry in the U. S. today; that air transportation is taking its place with other typical American industries—telephone, automobiles, radio—to lessen distance, to make uncovered pleasures available to you—to make life longer by permitting you better to utilize your time. American Airlines alone, which transported more than 54,000 passengers in the month of June, 1939 will, in a few years, be transporting more than a quarter million passengers in a single month."

Under a sub-heading, "Our Goal," Smith concluded: "The airplane is an American invention; nowhere else in the world has it been better used in the pursuits of peace and commerce. American air transportation leads the world. We pledge our best efforts to do our part to further widen that margin of leadership."

The advertisement appeared in papers in Washington, Boston, New York, Chicago, Detroit and Los Angeles.

## Newark Opens Runway

Newark (N. J.) Airport's new ne/w runway, opened officially July 19 is 200 ft. wide, with 2,750 ft. for landing space and 2,900 ft. for take-offs. One hundred and fifty feet at each end of the runway is of granite blocks, and 600 ft. is of macadam. Cinders treated with tar for compactness cover the remainder of the runway.

criticism of the Authority deserves not only the impatience of every citizen who would protect his government against unjust indictment; it merits likewise the particular condemnation of those who would assure that the nation's strength, in its most vital quarter, shall not be undermined," he concluded.

## At ATA Conference in Los Angeles

Pictured at a banquet during the recent engineering and maintenance conference of the Air Transport Association, held at the Town House in Los Angeles, are (l. to r.) Harry Stuhldreher, football coach at the University of Wisconsin; Jimmy Doolittle and William Kemper of the NACA.



Speaking before the conference, Stuhldreher said: "Rapid transportation of athletes, particularly for intersectional games, is an important part of the coaching problem. . . . Airplane transportation, in the future, will solve it all and it will come quicker than you think. Big league baseball will come to Los Angeles and San Francisco when air transport reaches a higher level. The day is not far away when planes will carry athletes back and forth across the continent, but the service must be absolute." Coach Stuhldreher flies continuously and is encouraging other members of the Big Ten conference to do likewise.

## THE C.A.A. RECORD

(Applications, Hearings, Dockets)

### CERTIFICATES GRANTED

#### Branniff Gets Certificates

The CAA on July 21 announced the awarding of mail-passenger-express certificates of convenience and necessity to Branniff Airways as follows: AM9, between the terminal point Chicago, the intermediate points Burlington, Kansas City, Wichita, Ponca City, Oklahoma City and Ft. Worth and the terminal point Dallas; AM15, between the terminal point Amarillo, the intermediate points Wichita Falls and Ft. Worth and the terminal point Dallas; between the terminal point Dallas, the intermediate points Ft. Worth, Waco, Austin, San Antonio and Corpus Christi and the terminal point Brownsville; and between the terminal point Dallas, the intermediate points Ft. Worth, Waco and Houston and the terminal point Galveston. Branniff also received a passenger-express certificate between the terminal point Houston and the terminal point Corpus Christi, and between the terminal point Houston and the terminal point San Antonio.

### APPLICATIONS

#### TWA Asks Boulder City Stop on AM38

TWA on July 17 filed application with the CAA for amendment of its certificate on AM38, Las Vegas-Phoenix, to include a stop at Boulder City. Such a stop was denied in the recent order granting TWA certificates on its various routes, and the CAA told the company it would be necessary to file for amendment to its AM38 certificate.

#### California, Oregon Stops Sought by United

United Air Lines has requested the CAA to amend its certificate on AM11, Seattle-San Diego, to include stops at Klamath Falls, Ore., Marysville, Cal., and Chico, Cal.

#### Southern Air Lines Application

The applications filed during the week of July 15 by Southern Air Lines Inc., for routes between Atlanta-Memphis, Atlanta-Savannah, Atlanta-Pensacola and Atlanta-Cincinnati states that daylight flights only will be conducted. The company asks for passenger-property certificates but states as follows: "Southern Air Lines Inc., will be very happy to carry the mail as a matter of convenience to the government and at \$1 per year, provided we are allowed to set our own schedules and do not come under certain regulations set for mail contractors." Another part of the application states: "From our contracts we are convinced there will be sufficient passengers to earn a return on our investment, providing convenient schedules are in force." Officers of the company are given as Stratton Hard, president; E. W. Romberger, vice president and general manager, and Joseph A. McCord, secretary-treasurer. No estimated profits or losses were contained in the application.

#### United Asks Modesto and Merced Stops

Stops at Modesto and Merced, Cal., on AM11, Seattle-San Diego, were asked by United Air Lines on July 21.

#### American, TWA Seek New York City Stop

American Airlines on July 22 filed application with the CAA for amendment to its certificates on AM7, Newark-Chicago, and AM18, Boston-Newark, "to designate the City of New York as an additional point on each of said routes." TWA also asked to have New York named as the terminal of AM2, Newark-Los Angeles, and requested that Newark be named as an intermediate point rather than the terminal.

#### Caribbean-Atlantic Airlines

Caribbean-Atlantic Airlines on July 20 filed application with the CAA for a passenger-property certificate to operate between Ponce and San Juan, Puerto Rico. The company plans to operate two model T tri-motored Stinsons. President is Dennis Powelson, Mercedita, P. R. Directors are Powelson, Marion Powelson, of Mercedita; Dr. Juan Torruella, San Juan; Edward Bonar, San Juan, and J. L. Valdivieso, Ponce. All are American citizens. "The board of directors has decided to leave the entire management of the business in the hands of the president and will choose additional managing officers if and when their services are deemed necessary," the application stated. Caribbean-Atlantic bought Powelson Air Service, which was doing business over the proposed route, giving Powelson \$15,000 common stock for his equipment and good-will. Paid-in capital is \$21,000, consisting of Powelson's \$15,000, and \$6,000 of stock sold to Dr. Torruella, Bonar and Valdivieso. Compensation for carriage of mail will not be necessary at least during the first year, the application said.

### HEARINGS

#### Penn-Central's Erie Hearing

Hearing was held July 24-25 before CAA Examiners F. W. Brown and Thomas Wrenn on the application of Pennsylvania-Central Airlines for inclusion of Erie, Pa., as an intermediate stop on the company's Pittsburgh-Buffalo passenger-express route. Frederick Ballard, PCA attorney, stated at the opening of the proceeding that such a stop would in no way be in competition with the schedules of American Airlines. American was not represented at the hearing.

C. Bedell Monro, president, testified that PCA now flies over Erie airport every day, and that the only change necessary in operations would be to make an actual landing at the field. Erie is now included in the company's letter of competency as an alternate airport, he added. Estimated additional costs which would be incurred by an Erie stop would amount to \$437 per month, or \$5,224 per year, Monro said. Two passengers per day between Pittsburgh and Erie would offset these additional costs, he said. Monro explained that a Pittsburgh-Erie route was operated in 1931 by another company with an average of more than two passengers per day. Testimony concerning the citizenship of PCA was given by Frederick Crawford, vice president-secretary. Harman Denny, Pittsburgh Chamber of Commerce, appeared in favor of the application, as did Franklin B. Hoshbach, attorney for Erie Airport; H. H. Hall, Erie Chamber of Commerce, and H. J. Steimer, Erie Airport manager.

#### Mark McKee Hearing

Hearing was held July 20 at the Carlton Hotel before CAA Examiner Lawrence Kesters on the application of Mark McKee, director of American Airlines, to be approved as a director of Pan American Airways Inc., Pacific Alaska Airways, Pan American Airways (Del.) and Pan American Airways (Nev.). Testimony was presented at the hearing by C. V. Whitney, chairman of the Pan Am board; C. R. Smith, president of American; A. I. Lodwick, vice president of Aviation Corp., and McKee.

Facts gathered from the testimony of the various witnesses were as follows: Aviation Corp., which holds 135,000 PAA shares, also holds about \$2,500,000 of American's convertible debentures which, if converted into stock, would give Aviation Corp. control of AA. Aviation & Transportation Corp. controls Aviation

Corp. by owning 29.7% of the latter's stock. E. L. Cord was at one time largest stockholder in the former company, but resigned and sold his stock in 1937. His 658,000 shares were bought by L. B. Manning (118,000), R. S. Pruitt (40,000) and the remainder by a group formed by Victor Emanuel. McKee was elected to Pan Am's board (subject to CAA approval) at the time Donald Douglas and Manning resigned. Manning, a director of Aviation Corp., never discussed the election of McKee to PAA with Whitney, and Whitney testified that no PAA director now represents Aviation Corp. On American's board, Harold Ames represents the interests of E. L. Cord, who owns 17,000 AA shares, while Francis Callery represents Aviation Corp. The law firm of Pruitt and Grealls represents Aviation & Transportation, Aviation Corp. and American, and Grealls was at one time a member of American's board. McKee is considered so valuable by Pan Am that he recently was elected to the company's executive committee, subject to CAA approval, Whitney said.

McKee, in his testimony, emphatically stated that he represents no one but himself on either board, and this statement was supported by Whitney and Smith. When the time came that he could not speak for himself, he would resign, McKee stated. The hearing was attended by CAA members Hinckley, Mason, Ryan and Warner. Hamilton O. Hale appeared as American's counsel, Preston Morris for PAA, and Hubert Schneider for the Authority.

#### Railway Express Hearing

Hearing was held July 17 at the Carlton Hotel before CAA Examiner F. A. Law on the application of Railway Express Agency for a certificate under the "grandfather" clause. Only witness presented by Railway Express was Morris P. Ballou, assistant to the president, who testified that his company only seeks a certificate which will authorize it to transport property under agreements with the various airlines. Railway Express, he emphasized, does not seek permission to operate its own aircraft. Ballou stated that, in his opinion, the service which has been rendered by REA has been adequate and efficient. Appearances were entered at the hearing by Robert Howlett, counsel for American Airlines, and by John T. Lorch, attorney for TWA and Eastern Air Lines. Neither entered motion to intervene. H. S. Marks and J. C. Greenway appeared as counsel for REA and George Neal represented the Authority. At the conclusion of the hearing, Examiner Law stated that the question involved is whether REA is an air carrier under section 1 of the Civil Aeronautics Act. He requested briefs from all parties on that subject.

#### Imperial Bermuda Hearing

A 15-minute hearing was held July 19 before CAA members Robert Hinckley, Oswald Ryan, Edward Warner and G. Grant Mason Jr., on the application of Imperial Airways for a foreign air carrier permit to operate between the U. S. and Bermuda. Only witness presented was Paul Bewshea, Imperial's U. S. representative, who introduced certain legal documents. Cyril Condon, Imperial attorney, stated that his company possessed a permit for the Bermuda operation from the Secretary of Commerce, which was in full force and effect at the time of passage of the Civil Aeronautics Act. He asked that an identical foreign air carrier permit be issued. Edward Weld and Robert Oliver appeared as counsel for the CAA's international division.

#### CAA Examiner Leasure Holds Hearings in Field

CAA Examiner C. Edward Leasure left Washington on July 30 to conduct various "grandfather" hearings in the field. Complete story on page 3.

### ORDERS

#### National Airlines Rate Decision

A rate decision issued by the CAA on July 13 granted National Airlines mail pay of 28c per mile on AM31 and AM39. Complete story on page 20.

#### Weight-Credit Trips Abolished in NWA Decision

In a rate decision issued July 19, the CAA set mail rates for Northwest Airlines on all mileage flown with mail, abolishing weight-credit trips. Complete story on page 1.

#### Regulations Revised

In a move designed to clean up and shorten the Civil Air Regulations, the CAA on July 14 stated that it has stricken parts 91, 92, 93, 95 and 96 of the regulations. These parts, which concern aircraft accident investigations, hearings and other items, were stricken because (1) they were directly in conflict with the Civil Aeronautics Act, or (2) they were made unnecessary by passage of the Act. Other revisions are expected to follow.

#### Rumanians Approved to Fly Over U. S.

The CAA on July 18 granted the application of the Minister of Rumania for permission for Peter Stamatescu, pilot, and H. Woutschach, mechanic, to fly a Klemm, model 35B plane, powered with a Hirth engine, and bearing Rumanian identification marks YR-PSK, over U. S. territory from a point on the border between the U. S. and Mexico near Mexicali, Mexico to New York City. The authorization is effective Sept. 1, continuing until Dec. 15. Flight will be via San Diego, Los Angeles, San Francisco, Reno, Elko, Salt Lake City, Rock Springs, Cheyenne, North Platte, Lincoln, Des Moines, Chicago, Toledo, Detroit and Cleveland. All flights are to be daylight contact. Other terms and conditions also are imposed.

### MISCELLANEOUS

#### Permit Recommended for Canadian Colonial

CAA Examiner George Keyser on July 24 recommended issuance of a foreign air carrier permit to Canadian Colonial Airways Ltd., for carriage of passengers, property and foreign mail. "Applicant is entitled to operate from a base in Canada to Albany but, because the Albany airport is temporarily closed to its present operation, applicant should be allowed to operate to New York until such time as the airport at Albany is safe for this particular operation," Keyser said.

#### Calendar of Hearings

- Aug. 2—Dakota Air Transport, for new route from Bismarck to Minot, N. D. To be held in U. S. Court Room, Bismarck, N. D.
- Aug. 7—United Air Lines, for amendment to AM11 certificate to include stops at Stockton and Red Bluff, Cal. Palace Hotel, San Francisco.
- Aug. 11—Condor Air Lines, for certificate under "grandfather" clause. Palace Hotel, San Francisco.
- Aug. 12—Continental Air Lines and Lawrence C. Ames, for approval of certain interlocking directorates. Palace Hotel, San Francisco.
- Aug. 14—Wilmington-Catalina Airlines, for "grandfather" certificate. Chamber of Commerce Bldg., Los Angeles.
- Aug. 17—Continental Air Lines, for amendment to AM29 certificate to include stops at Roswell, Hobbs and Carlsbad, N. M. Hotel Cortez, El Paso.
- Sept. 6—Braniff Airways, Chicago & Southern Air Lines, Eastern Air Lines and Missouri Central Airlines, on new routes serving Houston, Shreveport, Memphis, Evansville and Louisville. Carlton Hotel, Washington.
- Sept. 7—American Export Airlines, for a trans-Atlantic certificate of convenience and necessity. Departmental Auditorium, Washington.
- Sept. 18—Trans-Southern Airlines, Braniff Airways, on new routes serving Amarillo, Oklahoma City, Memphis and Atlanta. Raleigh Hotel, Washington.
- Sept. 27—Missouri Central Airlines, Eastern Air Lines, on new routes serving Nashville and St. Louis, and Kansas City, Springfield and Memphis; and Missouri

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Central's application for Birmingham-Nashville-Evansville-Terre Haute-Chicago; and EAL's Muscle Shoals-Nashville application, Mayflower Hotel, Washington.

Oct. 9—Delta Air Corp., Pennsylvania-Central Airlines, between Cincinnati, Lexington, Knoxville and Atlanta; between Knoxville, Birmingham, Meridian and New Orleans, and between Knoxville, Charleston and Pittsburgh. Departmental Auditorium.

Oct. 18—Braniff Airways, Kansas City Southern Transport, on new routes serving Kansas City, Joplin, Tulsa, Fort Smith, Texarkana, Shreveport, Alexandria, Baton Rouge and New Orleans. Carlton Hotel.

Oct. 30—Pennsylvania-Central Airlines, for new route serving Knoxville, Asheville, Hickory, Winston-Salem, Greensboro, Raleigh, Rocky Mount, Elizabeth City and Norfolk. Mayflower Hotel.

## Imperial Mail Hop Aug. 5

Imperial Airways has announced that Aug. 5 is the tentative date for the inauguration of trans-Atlantic mail service. A westbound trip will start on that day, and the eastbound flight will follow, possibly on Aug. 8. The northern route will be flown from Southampton to Montreal and New York via Foynes and Botwood. Weekly service will be provided in each direction to synchronize flights with Pan American Airways, forming semi-weekly service on the northern route. The *Cabot* flying boat (24 ton) will make the first flight, to alternate with the *Caribou*. Later they will be joined by the *Golden Hind* (31½ ton) of the "G" class. Piloting the *Cabot* will be Capt. J. C. Kelly-Rogers. No announcement has been made concerning the carriage of passengers.

## Private Flyers Get TWA Courtesy

Courtesy use of weather, telephone, service and repair facilities of TWA has been extended to private flyers, according to announcement from the Private Flyers Association. The "courtesy of the line" has been granted at locations not competing with fixed base operators. Members of the association have been urged to apply to the association for a courtesy card from TWA or United Air Lines. United on July 7 announced similar courtesies for private flyers.

## AD CAMPAIGN TO START EARLY IN OCTOBER

Early October is the date set for the beginning of the cooperative advertising campaign being sponsored by airlines and aeronautical manufacturers. Seventeen airlines and as many manufacturers have raised \$265,000, it was announced following an Air Transport Association meeting in Chicago. Erwin, Wasey & Co. will handle the account, and it is believed the bulk of the appropriation will go to magazines. Individual airlines are expected to increase newspaper advertising when the campaign is launched.

## CAA Clamps Down; Suspensions, Fines in Order for Regulation Violators

Stating that the Authority's inspectors have instructions to bear down on all "show-offs," CAA Chairman Robert Hinckley on July 17 announced the emergency suspension of three pilots' certificates and the imposition and collection of fines ranging from \$25 to \$100 on eight pilots and one airport manager for violation of the Civil Air Regulations.

"Civil aviation is becoming too important a factor in national recovery and national defense to permit monkey-shining to mar the fine safety records of thousands of good pilots," Hinckley stated.

Stanley Woodward of Kingsland, Ga.; Robert J. Sinclair of Sutcliffe, Nev., and John Funk of Tulsa, Okla., whose certificates were suspended, were found to have endangered their own and the lives of others by performing acrobatics at low altitudes. Hearing dates on the suspensions have not been set.

Woodward, who was under the influence of liquor, landed without in-

jury to himself or his plane, but Sinclair, who was performing acrobatics at less than 500 ft. over a gasoline station, hit one of the pumps and demolished his ship, but escaped injury to himself. Both held private certificates. Funk, holder of an instructor's rating as well as a commercial certificate, performed acrobatics at a low altitude over Tulsa Municipal Airport while carrying three passengers.

J. P. Casparis, operator of the Hampton Airport, Dallas, Tex., was fined for authorizing a pilot, whose certificate was invalid, to fly an uncertificated plane from the airport under his management. The pilot, J. W. Burden, also of Dallas, whose student certificate had expired several months prior to date of violation, flew the plane on a civil airway. Casparis and Burden both became liable to fines of \$1,000, but the CAA accepted compromise offers of \$25 from each.

Penalties for performing acrobatics at low altitudes, over congested areas, on civil airways and in control zones, were imposed on Paul Fritsche of Pitts-town, N. J.; Cletus J. Hallquist of Red Wing, Minn.; Chasler E. Holmes of Alameda, Cal., and Fred D. Toogood of Anchorage, Alaska. In two of these cases, evidence was found that the pilot had been drinking prior to flight, and, of the four, Fritsche was the only one who was equipped with a proper parachute. All became liable to \$1,000 fines, Fritsche settling for \$50, Hallquist for \$50, Holmes for \$100 and Toogood for \$100.

Harvey W. Hedlund of Chicago, and Charles L. McKee of Wichita, were both fined for violating the regulation which prohibits a pilot, whose certificate does not authorize him to do so, to carry a passenger in the control seat of a dual-control airplane while the controls are in operation. Both settled for \$25 apiece.

Stafford A. Short, pilot for Boston-Maine Airways, paid a fine of \$25 for landing passengers at Augusta, Me., when ceiling and visibility were below the minimums authorized in the company's air competency letter.

## Accepted



Walter Beech, president of Beech Aircraft Corp., Wichita, Kan., was honored on July 11 at a testimonial dinner given by the Wichita Chamber of Commerce on the occasion of the 25th anniversary of his first flight. He is shown accepting an inscribed airplane ash tray presented by Leona Harbstreet of Braniff Airways' Wichita office. (Photo by Bert Brandt).

## New Passenger

### Increases Shown

Passenger traffic increases on the airlines during June are shown in the table below. Percentage figures are based on revenue passenger miles unless otherwise indicated:

	Increase over May '39	Increase over June '38
*American .....	91.0	91.0
Braniff .....	63.05	63.05
*C & S .....	38.2	38.2
Eastern .....	53.0	53.0
*PCA .....	66.0	66.0
TWA .....	60.0	60.0
United .....	38.0	38.0

\*Revenue passengers.

Gorton Bulletin  
Gorton Heating Corp., Cranford, N. J., has issued bulletin No. 108 on high pressure air eliminators and automatic by-pass.



## Short Cut

### To America's Finest Vacation Areas

Continental's new Wichita-Denver service offers a **Short Cut** to and from the Nation's favorite mountain vacation areas . . . from all the East and Southeast to Colorado Springs, Denver and Rocky Mountain playgrounds . . . and to historic Santa Fe, America's oldest capital, in the heart of the picturesque Indian Country.

**CONTINENTAL**  
**AIR LINES**

America's **Fastest**

## A Dozen Years A-Growing



★ The first regularly scheduled air transport flights in America were undertaken with full knowledge that there was a big job ahead. Scarcely 5,000 passengers were carried in the whole year of 1926. How well the job has been done since then can be measured in today's startling increases in air travel. American Airlines alone carried 54,042 passengers in June this year—far more than any other air line in the world ever carried in one month before. No other mode of transportation has ever grown so fast in such a brief period of time. Having given air travel such overwhelming sanction in its dozen years a-growing, the nation may expect even greater things of it in the years to come.

**AMERICAN AIRLINES Inc.**

ROUTE OF THE FLAGSHIPS

## the GREAT PLAINS ROUTE-North & South







# FASTEST IN THE WORLD\*

The **TWA**

# "SKY CHIEF"

\* . . . . Fastest  
airline schedule  
for comparable  
distance.

**TRANSCONTINENTAL  
& WESTERN AIR, INC.**



**SHORTEST . . . .  
FASTEST . . . .  
Coast to Coast**

## NATIONAL AWARDED RATE INCREASE

**Gets 28¢ on AM31, AM39 in CAA Decision; Had Asked 33½¢; Management Criticized**

In a rate decision issued July 13, the CAA granted National Airlines mail pay of 28¢ per mile on AM31, Daytona Beach-Orlando, and AM39, Jacksonville-New Orleans, the rate to apply on 300 lbs. of mail or less, plus 2.5% of such amount for each additional 25 lbs.

National, which received 27¢ on AM31 and 19½¢ on AM39, had requested payment of 33 1/3¢ on both routes. The rate set by the Authority is based on direct airport-to-airport mileage without any reference to base mileage.

"The evidence in the present proceeding tends to reflect on the past efficiency of petitioner's management in certain respects," the CAA opinion stated. "It was indicated that improvement in petitioner's ground personnel could be made to advantage, and that a further division of duties would be desirable. Although petitioner's radio equipment was adequate, the manner of recording messages was poor and the certificate and inspection division of the Authority often failed to receive co-operation from the carrier in this respect. Testimony of a witness for the Authority indicates that, to the date of the hearing herein, none of petitioner's officers had undertaken the responsibility of effecting necessary improvements suggested by the inspectors.

"Prior to Nov. 15, 1938, petitioner failed to provide an adequate insurance program, paying total monthly premiums of \$3.98 which provided only for property damage and motor vehicle liability. The record shows petitioner had established no reserve fund as protection against the hazards of operation to its employees, passengers or the public. The failure to provide insurance is especially significant in view of the fact that the greater part of petitioner's assets which would otherwise be available for the satisfaction of claims is subject to equipment mortgages. However, during the last half of November and during December, 1938, petitioner paid premiums totaling \$482.48 providing compensation, flying liability and ground liability insurance. But, although petitioner has submitted other evidence of recent or prospective changes in managerial policy, the record indicates that many of the improvements which had been effected prior to the time of the hearing had been brought about only through the vigilance of the air carrier inspectors.

National's operating capital has been largely secured by means of loans on

## Wins Braniff Award

Jack Daugherty, district traffic mgr. for Braniff Airways at Brownsville, Tex., was awarded the first letter-of-the-month by T. E. Braniff, president, for performing the "most human act" of the month. Daugherty was credited with saving the life of Miss Ruth Townsend, Harlingen, Tex., in getting her to San Antonio and a specialist's care.

equipment, the CAA noted, adding, however, that between June 30 and Nov. 30, 1938 (when the company's second and third Lockheeds were purchased), 3,302 shares of \$1.00 par value stock were sold to the general public at \$2.50 per share.

Discussing the stock, the Authority stated that "the sale of these shares at a premium of \$1.50 is indicative to some extent of the possibility of attracting capital to this enterprise. It should be noted in this connection that when the 3,302 shares of stock were sold by petitioner to the public at \$2.50 per share, there were outstanding 160,000 shares of stock which represented a net book value of physical assets acquired from its predecessor amounting to only \$21,022.47, or about 13¢ per share.

"Thus it is seen that the price at which the stock was offered to the public exceeded by about 2,000% the price paid by the original stockholder, as measured by the net book value of his physical assets. It is pertinent to point out that almost the entire value attributed to its stock by petitioner arose through the appraisal of the franchise held by its predecessor at a value of \$50,000. At the price stock was actually offered and sold to the public, the original stockholder would have had to pay \$400,000 for his 160,000 shares of stock, rather than the \$21,022.47 of physical assets he is shown to have paid.

"It is difficult to estimate the future results of operations of AM39 because of petitioner's limited experience with respect to this route. Operations were not begun until Nov. 1, 1938, and passengers have been carried only since Dec. 23, 1938. For the two months operation over this route in the calendar year 1938, petitioner shows an operating loss of \$7,945.13. It appears, however, that this loss could have been substantially offset if petitioner had adequately prepared itself for the inauguration of this route, for it was petitioner's failure to meet certain safety prerequisites of the Authority that occasioned the withholding of authorization to carry passengers until Dec. 22, 1938."

The Authority also disagreed with the estimates of revenues and expenses submitted by National for its two routes in justification of a 33 1/3¢ rate.

## Airline Personnel

Jack Curran of United's Chicago traffic office has been transferred to Philadelphia as salesman.

Robert Bergin of United's San Francisco passenger service unit was transferred to the NY traffic office.

W. H. Scott, station mgr. for American at Abilene, Tex., has been appointed station mgr. at Big Spring, Tex. G. V. Zoller, station mgr. at Wilkes-Barre, Pa., is replacing Scott at Abilene, and L. O. Barnes, Buffalo agent, becomes station mgr. at Wilkes-Barre.

Jack Connelly, Springfield, Ill., private pilot has been appointed radio dispatcher at Springfield Airport in the office of Chicago & Southern. He will work under Station Mgr. Roy Urquhart.

A gold medal made in a limited number and with native gold by Dominican workmen recently was awarded to J. A. Zaldondo, asst. div. traffic mgr. of Pan Am's eastern division, as a token of friendship on the part of the Dominican government.

American stewardess notes: Florence Gaddberry, based at Newark, has resigned following her marriage to First Officer John Adams. They will live in Newark. Stewardess Bertha Lehnert, based in Chicago, has resigned due to illness. Stewardesses Tillie Dugas and Winnie Parks have resigned. Lois Thornton, formerly based in Chicago, has been transferred to Newark. Charlotte Reedy, formerly based in Chicago, has been transferred to Ft. Worth.

Agent R. M. Correa Aular of Pan Am's eastern division office at Guanta has appointed S. Tourzon to the post of reporter for the Guanta and Barcelona offices in compiling copy for the house organ. Appointed radio operator at the same location to replace Carlos Salaverria has been Roberto Diaz Moreno.

Appointment of Donald J. Rogers as auditor in charge of the revenue division has been announced by United.

The third AA stewardess to receive her ruby pin from the company in recognition of five years continuous service is Thelma Weld of the Glendale-Ft. Worth division.

Announcement was made recently of the marriage of Anne Reilly, communications dept., and Charles South, traffic dept., of Pan Am's Panama office in the eastern division.

Flying as a U. S. Naval Reserve lieutenant, Capt. Marius J. Lodeesen, PAA pilot, recently rescued three men—Ben Terry, Harrisburg, Pa.; George Wells and Jack May, Miami Beach, Fla.—who crashed their plane in the Florida Everglades jungle about 35 miles northwest of Miami. Summoned for emergency duty, Capt. Lodeesen and two other Pan Am pilots, Capt. Robert Ford and Capt. Frank Briggs, also Naval Reserve officers, were piloting Navy planes in search for the three flyers.

Alfred J. Schmidt, graduate of Parks Air College, is with Pan Am at the Cristobal, C. Z. base.

## Continental Reception at Wichita



Although Continental Air Lines began carrying passengers and mail between Wichita and Pueblo on AM 43 on June 23, the flight from Pueblo to the afternoon of July 6 was the official inaugural flight into Wichita. Shown above (left) is Bob Six, CAL president, deplaning. In the photo at right are (l. to r.) Paul Richter, executive v. p., TWA; O. R. Haueter, v. p.-operations, CAL; A. L. Russell, district traffic mgr., Wichita, CAL; R. H. Herrstein, general traffic mgr., CAL; W. H. Key, district traffic mgr., Wichita, Braniff Airways; R. B.

Riordan, district traffic mgr., Wichita, TWA; V. P. Conroy, v. p.-traffic, TWA; Bill Beatty, asst. to v. p., Braniff. All officials were present at the public ceremony and banquet at Wichita Municipal Airport.

Special Continental Air Lines' editions were published on July 6 by the *Wichita Eagle* and the *Wichita Beacon*. A reception also was staged at Garden City, Kan., stop on AM 43, and a special edition was published by the *Garden City Daily Telegram*.

# DELTA AIR LINES

## AGAIN PERMITTED TO

L - E - N - G - T - H - E - N



(Above) **FINAL INSPECTION** by Delta mechanic. Delta is Texaco fueled and lubricated 100%.

(Right) **DELTA AIR LINER**, a Lockheed Electra, at Dallas, final checked and ready for flight, eastbound across six states to Atlanta and Charleston.

### TIME BETWEEN OVERHAULS

FROM 350 HOURS, not only has the time been stepped up to 510 hours, but, with proper authority, will soon be increased to 560 hours. Delta's high standard of efficiency will be maintained.

The oil that has made this startling increase possible is New Texaco Airplane Oil.

Since 1934 Delta has used New Texaco Airplane Oil and Texaco Aviation Gasoline exclusively. Trained aviation engineers will gladly help you select and apply Texaco Aviation Products. For this engineering service, phone the nearest of 2229 warehouses or write:

The Texas Company, *Aviation Division*, 135 East 42nd Street, New York City, N. Y.



## NEW TEXACO AIRPLANE OIL



**W. C. MILES**, in charge of Delta maintenance. Mr. Miles is stationed at Candler Field, Atlanta, Ga.

## War Dept. Tells of Powerful 2-Row Radial Engine Developed by P & W

A new aircooled radial aircraft engine of completely new design, recently completed, was announced by the War Dept. on July 14 as having finished the Air Corps' 150-hr. test at the materiel division's laboratory at Wright Field, Dayton, O. The new engine, built by Pratt & Whitney Aircraft Div., United Aircraft Corp., East Hartford, Conn., has been under development for more than two years. Army and Navy engineering experts, working in conjunction with the corporation's engineers, participated in its development.

"Radical changes in design have been incorporated in this engine so that although it develops an extremely high horsepower rating it is no larger in diameter than the original 400-hp. Wasp built by Pratt & Whitney Aircraft over 10 years ago," the announcement said.

The War Dept. refused to reveal details of the new powerplant, but it was learned that it is a double row radial with 18 cylinders, nine in each bank, and weighs slightly more than one pound per horsepower.

"The reduced frontal area of the engine permits its use in modern high speed aircraft," it was said by Louis Johnson, assistant secretary of war.

Before being sent to the materiel division, the engine underwent more than 3,000 hrs. running in the Pratt & Whitney laboratory, where, in addition to 150 hrs. running under varying loads, it was put through more than 50 "power dives" under conditions simulating actual flight, and at which horsepower was considerably greater than its normal rating were said to have been obtained.

First flight tests of the engine were

made in mid-July at Rentschler Field, East Hartford, after the plant had been installed in a Vultee YA-19 attack bomber within the same engine cowling previously used for a 1,200-hp. engine. Two flights, totaling more than three hours, were conducted by Howard H. Sargent, test pilot, who said the engine performed "faultlessly."

It also was revealed that the 150-hr. test was completed in only 198 hrs. actual elapsed time, the engine being run continuously day and night, stopping only for routine inspection. Tests will continue for several weeks.

"This is the most powerful engine that has ever passed the government test of 150 hours, which is the most rigid ordeal to which powerplants are submitted today anywhere in the world," said J. Carlton Ward Jr., general manager of Pratt & Whitney. "The diameter of this engine is actually the same as that of the original 400-hp. Wasp engine, although its power output is several times as great. The new engine is an entirely new design in which major parts such as cylinders, master rods, crankcases and others have been redesigned and improved to meet the new requirements of high horsepower performance."

Entire project was carried through by Pratt & Whitney's engineering staff under the direction of Leonard S. Hobbs, engineering mgr., and A. V. D. Willgoos, chief engineer, who was directly responsible for the design. Mr. Hobbs has been associated with P & W since 1927, and Mr. Willgoos has been with the firm since its organization in 1925. He has been in charge of the design of every P & W engine since the first Wasp.

## Ryan Co. Announces Two Appointments

T. Claude Ryan, president of Ryan Aeronautical Co., San Diego, Cal.,



Burnett

has announced the appointment of Daniel B. Burnett, Jr. as head of the experimental manufacturing dept., a promotion which follows service of four years as foreman of the wing dept. Burnett will have charge of construction of all new experimental projects.

Announcement also was made of the appointment of Mervin Marco as personnel director. With more than 20 years' experience in the supervision of production personnel in various manufacturing plants, he takes his first assignment in the aircraft industry direct from the personnel directorship of Willys-Overland Pacific Co., Los Angeles.

Burnett has been associated with Ryan for more than 15 years and is one of the firm's oldest employees in point of service.

Mr. Ryan also announced that the company's engineering dept., under the direction of Millard C. Boyd, has been rapidly expanded in the last few months.

## EARLE ELECTED V. P.

General Manager of Propeller Division Is Made Executive of Curtiss-Wright Corp.

Robert L. Earle, general manager of Curtiss Propeller Div., Curtiss-Wright

Corp., Clifton, N. J., has been elected a vice-president of the corporation, according to announcement by Guy W. Vaughan, the organization's president, on July 15.

Mr. Earle joined the corporation in 1929, was assistant to Burdette S. Wright in charge of the organization's Washington office from '29 to '33, directed that office from '33 to '37, served as assistant to the general manager (Burdette S. Wright) of the Curtiss Aeroplane Div. from '37 to '38 and was made general manager of the new Curtiss Propeller Div. when it was organized in 1938 to take over propeller production of the former organization.



Earle

## 25-Year Man

Charles H. ("Charley") Longwell, chief inspector of Curtiss Aeroplane Div., Curtiss-Wright Corp., Buffalo, N. Y., has been awarded a "25-year pin" at the completion of a quarter-century of "meritorious service" for the organization. He joined Glenn H. Curtiss, pioneer plane manufacturer, in 1914.



## Taylor Appointed Eastern N A Agent

Leland R. Taylor has been appointed eastern representative of North American Aviation



Taylor

Inc., Inglewood, Cal., with headquarters in Washington, it was announced on July 14 by J. H. Kindelberger, president. He will act in a liaison capacity between the Army and Navy and the California factory, and his territory will include, in addition to Washington, Wright Field at Dayton, O. He will take some of Mr. Kindelberger's responsibilities, since the latter, in addition to other duties, has done nearly all contact work for the company up to this time.

Lee Taylor, as he is known in the industry, for over nine years was connected with Douglas Aircraft Co. of Santa Monica, Cal., where he was "a combination handy man, pinch hitter and trouble shooter" particularly in regard to industrial relations. He was executive assistant under the late Harry Wetzel and was employed in the same capacity under Maj. Carl Cover, Wetzel's successor as general manager, when on June 30 he resigned to accept the position offered by North American.

Following are North American's officers: J. H. Kindelberger, pres.; J. L. Atwood, v. p.; Henry M. Hogan, v. p.; Lisle R. Beardslee, secy.; R. A. Lambeth, treas.; Harvey C. Tafe, asst. secy.; A. J. duBouchet, asst. secy.; Frank Beranek, asst. treas. E. R. Brech recently was elected chairman of the board of directors.

## ULTRA-HIGH BIDS

CAA Receives Quotations on Stations for New York-Chicago Airway

The CAA has received bids on complete sets of radio equipment for ultra-high frequency radio range stations, to be used on the New York-Chicago airway, paralleling those of intermediate frequency.

It is probable that eight stations will be installed, although bids were received on quantities of 10, 4, 3, 2 and 1. Bidders were Heintz & Kaufman Ltd., San Francisco; Air Track Mfg. Corp., Washington, D. C.; International Development Co., New York, and Westinghouse Electric & Mfg. Co., Washington. Low bid was submitted by Heintz & Kaufman. They will only receive the award, however, if their specifications conform with CAA demands. No award has been made to date.

## Everel Exec

Sidney H. Fedan recently was elected vice president - sales of Everel Propeller Corp., Baltimore, having resigned his position as materials engineer for Vega Airplane Co., Burbank, Cal. He gained experience in positions of stress analyst, designer, draftsman and chief purchasing agent of Spartan Aircraft Co., Tulsa, Okla. Mr. Fedan is an aeronautical engineering graduate of New York University.



## All American to Open Air Express Service

All American Aviation, operator of air mail routes 1001 and 1002 with Dr. L. S. Adams' pick-up and delivery device, announced on July 17 the "immediate establishment" of a daily air express service in conjunction with its air mail schedules to the 58 cities which it serves in Pennsylvania, West Virginia, Ohio and Delaware.

With the exception of Pittsburgh, Philadelphia, DuBois, Pa., Charleston and Huntington, where scheduled landings are made, the service will be provided by the pick-up and delivery device.

Richard C. du Pont, president of All American, stated that the performance record in transporting mail in the first two months "has demonstrated the feasibility and dependability of the non-stop pick-up and delivery system in providing communities regardless of size with the advantages of air transportation, and the company is satisfied that the service can now be expanded." May performance is reported as 100%, June 92%.

Shipments will be accepted at the cities above for delivery to all stations on the two routes, and shipments will be accepted at all stations for delivery to landing points. On through express, between termini, shipments up to 200 lbs. will be accepted. Shipments dropped in flight will be limited to 35 lbs. each. Rates will be 30c per lb. or 1 mill per lb.-mile for the first pound, whichever is greater, and 1 mill per lb.-mile for each additional pound, fractions of pounds and cents to count as full pounds and cents. For instance, a pound package from Pittsburgh to Huntington, 196 miles, would cost 30c, and a two-pound package .496 or 50c.

## SEVERSKY APPOINTMENT

Lieut. Col. H. W. Flickinger Directs Company's Export Division

Lieut. Col. H. W. Flickinger, retired, of the Army Air Corps has joined Seversky Aircraft Corp., Farmingdale, L. I., as director of the export division. He is now traveling in Europe in connection with the company's export business.

Lieut. Col. Flickinger was graduated from Massachusetts Institute of Technology in the courses of mechanical and aeronautical engineering, was commissioned in the Air Corps in early 1917 and remained in that service for 22 years in various technical and production positions.



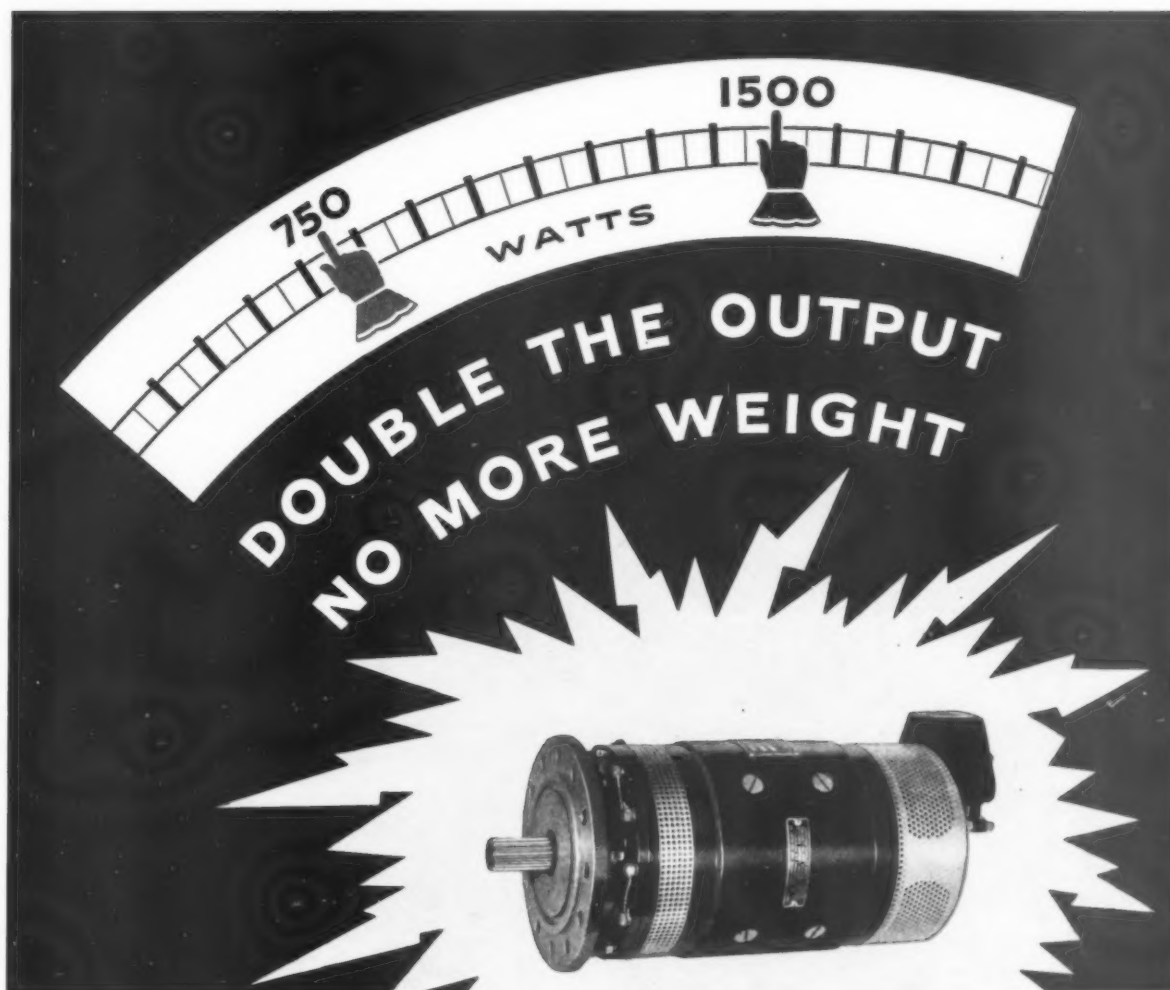
Flickinger

## Supervisor

Allan F. Bonallie, formerly in charge of ground instruction in the Boeing School in Oakland, Cal., has been transferred to Chicago headquarters of United Air Lines to supervise dispatch for the system.







**NEW 1500-WATT**

## *Eclipse* D. C. GENERATORS

**C**ONSISTENT Eclipse policy of anticipating the aviation industry's requirements has made available these new larger capacity generators for 12 and 24 volt D. C. operation.

These new generators produce 100 amperes at 15 volts and 50 amperes at 30 volts respectively with the

usual Eclipse high standards of quality, exacting performance and positive reliability. In size and weight are almost identical with the present popular 750 watt units. Full details on application.

**ECLIPSE AVIATION**  
DIVISION OF  
BENDIX AVIATION CORPORATION  
BENDIX, NEW JERSEY



## GOVERNMENT CONTRACTS

(Awards of \$10,000 and Over)  
Release Date Shown

## ENGINES, PARTS, ACCESSORIES

Pratt & Whitney Aircraft Div., United Aircraft Corp., 7/15, engines, \$1,448,977.60 (Navy).  
Bendix Products Div., Bendix Aviation Corp., South Bend, Ind., 7/15, carburetor assy., \$29,573.50 (War).  
Pump Engineering Service Corp., Cleveland, O., 7/15, pump assy., \$69,271.15 (War).  
Eclipse Aviation Div., Bendix Aviation Corp., Bendix, N. J., 7/15, parts for Eclipse generators & starters, \$25,148.80 (War).  
Pump Engineering Service Corp., Cleveland, O., 7/15, pump assy., \$31,991.25 (War).  
Pioneer Instrument Co. Inc., Bendix, N. J., 7/15, indicators, \$14,900 (Navy).  
Kollsman Instrument Co. Inc., Elmhurst, N. Y., 7/15, altimeter assy., \$83,350 (War).  
Pioneer Instrument Co. Inc., Bendix, N. J., 7/15, indicator assy., \$114,400 (War).  
Kollsman Instrument Co. Inc., Elmhurst, N. Y., 7/15, indicators, \$39,771 (War).  
Hayes Industries Inc., Jackson, Mich., 7/22, brake wheel assy., \$11,725 (War).  
Hayes Industries Inc., Jackson, Mich., 7/18, wheel & brake assy., \$23,680 (War).  
Steel Products Engineering Co., Springfield, O., 7/20, propeller hubs, \$18,290 (Navy).  
Sperry Gyroscope Co. Inc., Brooklyn, N. Y., 7/12, instruments, \$393,812 (War).  
Pioneer Instrument Co. Inc., Bendix, N. J., 7/12, instruments, \$74,800 (War).  
Kollsman Instrument Co. Inc., 7/12, instruments, \$74,810 (War).  
Breeze Corps, Inc., Newark, N. J., 7/12, instruments, \$91,750 (War).  
Keuffel & Esser Co., Hoboken, N. J., 7/12, instruments, \$103,500 (War).  
Hamilton Standard Propellers Div., United Aircraft Corp., East Hartford, Conn., 7/12, propeller blades & assy., \$74,424.52 (War).  
Curtiss Propeller Div., Curtiss-Wright Corp., Clifton, N. J., 7/12, propeller blades & assy., \$103,540 (War).  
Wright Aeronautical Corp., Paterson, N. J., 7/12, spare parts for engines, \$657,388.10 (War).

## MISCELLANEOUS

Wright Aeronautical Corp., Paterson, N. J., 7/12, certain endurance tests & type test of a 14-cylinder unit of a 42-cylinder engine, \$72,900 (War).  
Cheney Bros., Manchester, Conn., 7/12, parachute silk, \$41,800 (Navy).  
Blaw-Knox Co., Pittsburgh, Pa., 7/15, structural steel base adapters, \$15,687.55 (CAA).  
Edward G. Budd Mfg. Co., Philadelphia, Pa., 7/15, wing panels, installation, \$42,204 (War).  
Fairchild Aerial Camera Corp., Jamaica, L. I., N. Y., 7/15, camera assy., \$103,570 (War).  
National Cine Laboratories, New York, N. Y., 7/15, conversion of cameras, \$27,248 (War).  
Edgar Tobin Aerial Surveys, San Antonio, Tex., 7/15, contact prints, \$52,669.77 (Agriculture).  
Conroy Mfg. Co., Philadelphia, Pa., 7/22, mechanics suits, \$21,750 (War).  
S. G. Adams Metalware Co., St. Louis, Mo., 7/22, photographic ferrotype plate, \$10,470 (War).  
Aero Service Corp., Philadelphia, Pa., 7/22, contact prints, \$33,750 (Agriculture).  
Edgar Tobin Aerial Surveys, San Antonio, Tex., 7/22, index maps, \$52,669.77 (WPA).  
Link Aviation Devices Inc., Binghamton, N. Y., 7/12, instrument flying & landing trainers, \$88,800 (War).  
Humble Oil & Refining Co., Houston, Tex., 6/26, aircraft fuel, \$621,197 (War).  
Phillips Petroleum Co., Bartlesville, Okla., 6/28, aircraft fuel, \$104,611.35 (War).  
Shell Oil Co., St. Louis, Mo., 7/5, aircraft fuel, \$39,020 (War).  
Standard Oil Co. (Cal.), San Francisco, Cal., 6/26, aircraft fuel, \$194,142.50 (War).  
Shell Oil Co. Inc., San Francisco, Cal., 6/26, aircraft fuel, \$331,277.50 (War).  
Shell Oil Co. Inc., San Francisco, Cal., 6/27, aircraft fuel, \$21,427 (War).  
Standard Oil Co. (Cal.), San Francisco, Cal., 6/27, aircraft fuel, \$42,156 (War).  
Transcontinental & Western Air Inc., Kansas City, Mo., 6/27, aircraft fuel, \$23,890 (War).  
Standard Oil Co. (La.), New Orleans, La., 6/27, aircraft fuel, \$30,522 (War).  
Humble Oil & Refining Co., Houston, Tex., 6/27, aircraft fuel, \$20,625 (War).  
Oklahoma City Air Terminal, Oklahoma City, Okla., 6/27, aircraft fuel, \$18,900 (War).  
Standard Oil Co., Chicago, Ill., 6/27, aircraft fuel, \$10,650 (War).  
Municipal Airport, City of Jacksonville (Fla.), 6/27, aircraft fuel, \$23,475 (War).  
Consolidated Aircraft Corp., San Diego, Cal., 6/24, services & materials, \$175,386.87 (Navy).  
Link Aviation Devices Inc., Binghamton, N. Y., 6/24, aviation trainers, \$79,376 (Navy).  
Harrington-Rex Co. Inc., Brooklyn, N. Y., 7/1, windlass assy., \$12,244.10 (War).  
Blackhawk Mfg. Co., Milwaukee, Wis., 7/1, jack assy., \$23,900 (War).  
Eclipse Aviation Div., Bendix Aviation Corp., Bendix, N. J., 7/1, electric motor, \$24,090 (War).  
Eclipse Aviation Div., Bendix Aviation Corp., Bendix, N. J., 7/1, starters, \$20,148 (Navy).  
Fairchild Aerial Camera Corp., Jamaica, L. I., N. Y., 7/1, cameras, \$74,759.35 (War).  
Standard Oil Co., Louisville, Ky., 7/5, aircraft fuel, \$12,000 (War).

**Engineering and Data Book**  
For machine designers and engineers designing V-belt drives, Manhattan Rubber Mfg. Div., Raybestos-Manhattan Inc., 94 Townsend St., Passaic, N. J., has published and announced a new engineering and data book.

**Fleet Gets \$300,000 Order**  
Canada's Fleet Aircraft Ltd. has received acceptance from the department of national defense of its tender for between 25 and 30 training planes for the Royal Canadian Air Force. With other domestic and foreign business, this contract will add approximately \$300,000 to contracts in hand and will boost Fleet's backlog to \$1,800,000.

**Howard Granted Permit**  
Lincoln, Neb.—Howard Aircraft Corp. of Chicago has been granted a new permit by the Nebraska state board of securities to sell 20,000 share of capital stock at \$3 per share.

**Turkey Orders Irving 'Chutes**  
Parachutes to be furnished along with 50 training planes recently ordered by Turkey from Curtiss-Wright Corp. will mean about five weeks work for Irving Air Chute Co. at Buffalo, N. Y. George Waite, president, has announced. An additional parachute order is expected from the Turkish government. It was said.

## NEW PROCUREMENT BILL INTRODUCED

Measure Designed to Speed Defense Program; Would Allow Awards to Three Lowest Bidders

A new procurement bill (H R 7267), designed to replace H R 7111, which ran into strong opposition because of its contract-by-negotiation feature, was introduced in the House during the last two weeks and reported favorably by the aviation subcommittee of the House Military Affairs Committee. Similar action by the full committee is expected.

Introduced by Congressman Dow Harter (D., Ohio), H R 7267 provides that whenever contracts are to be awarded by competitive bids for furnishing aircraft, aircraft parts and accessories to the War Dept., the Secretary of War may award the contracts to the lowest responsible bidder that can satisfactorily perform the work; or, in his discretion, when necessary to the national defense, to such bidders, not exceeding three, as the secretary finds to be the lowest responsible bidders that can perform the service.

The determinations as to such multiple awards and the necessity for making them shall be based on quality, times, and rate of delivery, price and the prevention of the overloading of a plant or plants. Other provisions of the bill require that no awards shall be made in excess of those offered by the bidders in competition; the 12% profit limitation shall apply, and the Secretary of War is required to report in detail to Congress on such quantity contracts.

## 205 PLANES IN ORDER

Douglas Award of May 20 Amounts to \$14,470,082; Details of NA Contract Revealed

The \$15,000,000 order by the War Dept. to Douglas Aircraft Co. Inc., El Segundo Div., announced on May 20, for new Douglas DB-7G attack bombers, involves a total of 205 aircraft, of which 19 will be represented by spare parts, it was learned recently. Sixty-three of the planes, to be equipped by the manufacturer with turbo superchargers, will have a guaranteed top speed of 395 mph. at 20,000 ft.; 123 planes, without turbo superchargers, will have a guaranteed top speed of 335 mph. at 5,000 ft. Total sum involved, as learned when the award actually was made, is \$14,470,082.50.

The award announced June 17 for North American NA-55-1's involves a sum of \$1,659,090.20, instead of the estimated \$2,500,000. Government will provide P & W R-1340-S3H1 engines and Hamilton Standard constant speed prop assemblies for the planes. Contract calls for 92 planes plus spare parts equivalent to nine ships, or \$15,290 per unit.

It is understood that Army Air Corps officials helped draft the legislation and while they would have preferred a broader leeway, are fairly well satisfied. Members of the Senate's Military Affairs Committee have been kept fully informed as to the House aviation subcommittee's activities to hasten action on the Senate side, so that the program can go through Congress without a hitch before adjournment.



**AIRMAX**

The  
**STANDARDIZED**  
STEAM HEATING PLANT  
for ANY CABIN AIRCRAFT

Product of



**SOLAR**  
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BROCHURE ON REQUEST TO AIRCRAFT ENGINEERS

**SAN DIEGO**  
LINDBERGH FIELD

**NEW YORK**  
60 E. 42nd STREET



Flexible in design—dependable, continuous operation

## AIRPORT RADIO RECEIVERS

AVIATION RADIO SECTION, RCA MFG. CO., INC., CAMDEN, N. J. • A SERVICE OF RADIO CORPORATION OF AMERICA



## Aeronautics

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## Aeronca Prices Down As Business Booms

New prices, the result of unprecedented volume of business, have been announced effective Aug. 1 for Aeronca planes.

Price reductions ranging up to \$100 on current Aeronca models follow:  
Scout model KC with 40-hp. Continental, \$1,290; Scout model CF with 40-hp. Franklin, \$1,445; Chief model 50-P with 50-hp. Franklin, \$1,565; Chief model 50-L with 50-hp. Lycoming, \$1,595; Chief model 50-LA with 50-hp. Lycoming, \$1,635; Chief model 50-C with 50-hp. Continental, \$1,695; Chief model 65-C with 65-hp. Continental, \$1,795.

Aeronca reports that during the first six months of 1939 domestic and foreign sales were 99.3% over the same period in 1938.

## STAFF ADDITIONS

### Barkley-Grow Appoints Three; Orders Increase for T8P1's

New additions to the factory staff of Barkley-Grow Aircraft Corp., Detroit, include Allen J. Dysart, formerly with Seversky, Consolidated and Curtiss, as chief inspector; George Burrell, formerly of Seversky, staff pilot, and E. F. Skocdopole, chief test pilot.

Increased orders for T8P1 ships has forced the company to start production on an additional group of the planes, the number being between five and 10. Installation of Edo floats on the T8P1 has been completed and tests will be made shortly.

## CAA SEEKS ENGINEERS

### Civil Service Register Exhausted; Examinations Announced

The CAA on July 25 stated that the register of aeronautical engineers with the Civil Service Commission had been exhausted many months ago, and announced that the Commission will hold unassembled examinations for applications closing Aug. 14 in the east and Aug. 17 in the west.

Examinations will be held on the following positions:

Senior aeronautical engineer, \$4,600-\$5,400 per year. Must be under 53 years of age, have an engineering degree and at least six years experience in the field for which he applies.  
Aeronautical engineer, \$3,800-\$4,600. Must be under 53, have engineering degree, and five years experience.  
Associate aeronautical engineer, \$3,200-\$3,800. Must be under 45, have engineering degree and three years experience.

Assistant aeronautical engineer, \$2,800-\$3,200. Must be under 40, have engineering degree and two years experience.

Experience may in some cases be substituted for education, and vice versa. The CAA, it was said, has vacancies for engineers in its Washington, Kansas City and Santa Monica offices, in aerodynamics, structures, equipment, propellers, power plant installations and specifications. The Authority also stated that there are engineering vacancies in other branches of the government and throughout the industry. Further information may be obtained by writing to the Civil Service Commission, Washington, D. C., and asking for bulletin No. 67.

## Hardman Foundry Company

Hardman Metal Products Co., 216 W. Pico St., Los Angeles, Cal., has been started by Frank Hardman to manufacture general metal aircraft units. Hardman, formerly factory superintendent with Northrop Aircraft Inc., has been instructor at Anderson Airplane School in Los Angeles.

## To Pay for Junkers Planes

In describing a loan from the Chilean government for the national commercial airline, Linea Aerea Nacional, for which 25,000,000 pesos in bonds will be issued, "Aeronautical World News" reports that 11,000,000 pesos will be used to pay for four 10-passenger Junkers bought by the line in 1938. Another debt which will be canceled is that of 4,300,000 for six Potez planes and parts.

## RECORD OF SCHEDULED AIRPORT OPERATIONS

	Week Ended July 8				Week Ended July 15			
	Passengers In	Out	Transports In	Out	Passengers In	Out	Transports In	Out
*Burbank	1,124	1,091						
Cleveland	1,888	1,868	234	229	2,359	2,289	250	247
Dallas	1,097	1,158	169	170	1,153	1,258	166	167
**Pittsburgh	1,009	922	289	289	1,254	1,323	302	302
San Francisco	742	757	144	144	845	920	152	152

Chicago In 19,438 Out 21,198 In 1,747 Out 1,754 Mail 282,510 Express 206,989

\*Burbank figures show WAE, TWA, UAL, totals; include no through passengers; revenue passengers only.

\*\*Pittsburgh figures show passengers in and out; no through passengers counted.

## REVENUE PASSENGER MILES FLOWN

Air Transport Association Tabulation

	1938	1939	% increase from corresponding previous period
January	27,110,800	34,457,270	27.09
February	26,155,235	31,046,932	18.7
March	34,565,609	44,441,848	28.57
April	37,929,046	47,423,868	25.03
May	42,100,250	57,407,080	36.36
June	40,284,317	63,576,325	57.82
	208,145,257	278,353,321	33.73

## May Airline Statistics

(CAA Figures)

	March 1939	April 1939	May 1939	May 1938	% of increase over May 1938
Companies operating	18	18	17	19	
Companies reporting	18	18	17	19	
Passengers (rev.)	106,349	118,687	* 149,291	105,038	42.13
Express (lbs.)	695,274	663,884	725,061	499,960	45.02
Express pound miles	415,083,212	400,501,211	409,938,146	311,348,692	31.67
Miles flown (rev.)	6,125,164	6,267,595	* 7,122,347	6,278,025	13.45
Passenger miles flown (rev.)	44,474,610	47,450,733	* 57,483,927	42,120,800	36.47
Available seat miles flown	84,962,733	87,470,221	* 104,844,126	85,584,306	22.25
Revenue passenger load factor	52.35	54.25	54.83	49.22	11.40
* All time high for any previous month.					1.07

## NEW YORK STOCK EXCHANGE

Week Ended July 15

	High	Low	Net Change	Sales
American Airlines	31 1/2	29 3/4	+ 1 1/2	7,200
Aviation Corp.	41 1/4	4	.....	34,600
Bendix Aviation	24 1/2	22 1/2	+ 1 1/2	13,600
Boeing Airplane	23 1/2	20 1/2	+ 3 1/2	14,800
Consolidated Aircraft	20 3/4	18 3/4	+ 2	2,600
Continental Motors	2 1/2	2	+ 3/4	7,700
Curtiss-Wright	5 1/2	5 1/8	.....	10,200
Curtiss-Wright A	25 1/4	24 1/2	+ 5/8	4,100
Douglas Aircraft	70 3/4	67	+ 3 3/4	10,000
Eastern Air Lines	17	15 1/2	+ 1 1/2	9,900
Ex-Cell-O	19 1/2	17 1/2	+ 2	1,500
Glenn L. Martin	34 1/4	32 1/4	+ 2	10,300
Natl. Aviation Corp.	10	9 3/4	.....	900
N. American Aviation	16	14 1/4	+ 1 1/2	13,400
Pan American Airways	14 3/4	13 1/4	+ 1 1/2	2,300
Sperry Corp.	43 3/4	41	+ 2 3/4	14,900
Thompson Products	24 1/4	22 1/2	+ 1 1/2	1,600
TWA	9	8 1/2	+ 1/2	2,600
United Aircraft	37 1/2	35 1/2	+ 2	13,000
United Air Lines	11 3/4	10 1/4	+ 1 1/2	11,400
Wright Aeronautical	100	97 1/2	+ 2 1/2	30

Week Ended July 22

	High	Low	Net Change	Sales
American Airlines	36	30 1/4	+ 5 3/4	15,600
Aviation Corp.	49 1/4	4	.....	96,200
Bendix Aviation	26 1/2	23 1/2	+ 3	42,900
Boeing Airplane	24 1/2	23	+ 1 1/2	23,500
Consolidated Aircraft	21 1/2	20	+ 1 1/2	9,600
Continental Motors	2 1/2	2 1/2	.....	34,200
Curtiss-Wright	5 1/2	5 1/4	+ 1/4	24,100
Curtiss-Wright A	26 1/2	24 1/2	+ 2	11,500
Douglas Aircraft	69 1/4	65	+ 4 1/4	27,600
Eastern Air Lines	17	17	+ 2 1/2	25,900
Ex-Cell-O	19 1/4	19 1/4	+ 1 1/2	3,900
Glenn L. Martin	36	33 1/2	+ 2 1/2	51,000
Natl. Aviation Corp.	11 1/2	9 3/4	+ 1 1/2	8,500
N. American Aviation	16 1/2	15 1/2	+ 1	43,200
Pan American Airways	14 3/4	14	+ 1/2	6,200
Sperry Corp.	45 1/2	43 1/2	+ 2	25,200
Thompson Products	26 1/2	23 1/2	+ 3	9,300
TWA	11 1/2	9	+ 2 1/2	45,900
United Aircraft	37 1/2	37 1/2	+ 1 1/2	43,200
United Air Lines	13	11 1/2	+ 1 1/2	42,600
Wright Aeronautical	104	100	+ 4	170

## NEW YORK CURB EXCHANGE

Week Ended July 15

	High	Low	Net Change	Sales
Aero Supply B	3 3/8	3 3/8	.....	500
Air Associates	.....	.....	.....	.....
Air Investors cv pf	.....	.....	.....	.....
Air Investors War	1 1/4	3/16	- 1/16	300
Aviation & Transp.	2 1/8	2 1/4	.....	1,100
Beech Aircraft	6 3/4	6	- 3/4	900
Bell Aircraft	22 1/2	20 1/2	+ 1 1/2	1,600
Bellanca Aircraft	7 1/8	6 3/4	+ 1/4	2,900
Breeze Corps.	4 3/8	4	+ 3/8	2,100
Brewster Aero	8	7 3/4	- 1/4	2,300
Canadian Colonial	7 1/4	6 1/8	+ 3/8	2,500
Fairchild Aviation	11 3/4	10 3/4	+ 1	1,300
Grumman Aircraft Eng.	16	14 1/2	+ 1 1/2	1,000
Irving Air Chute	16 1/2	16 1/2	.....	400
Lockhead Aircraft	27	25 1/2	+ 1 1/2	6,800
Penn-Central Airlines	9 1/4	8 1/2	+ 1/4	1,200
Roosevelt Field	.....	.....	.....	.....
Seversky Aircraft	3 3/8	3 3/8	.....	4,100
Waco Aircraft	4 1/2	4 1/2	.....	100
Western Air Express	3 1/2	3 1/4	+ 1/4	500

Week Ended July 22

	High	Low	Net Change	Sales
Aero Supply B	3 1/2	7	+ 3 1/2	1,600
Air Associates	7 1/2	1 3/4	+ 1 1/4	600
Air Investors cv pf	14	14	.....	700
Air Investors War	1 1/4	1 1/4	.....	100
Aviation & Transp.	2 3/4	2 3/8	+ 1/8	4,700
Beech Aircraft	6 3/4	6	+ 1/2	3,700
Bell Aircraft	24 1/4	20 1/4	+ 4	6,000
Bellanca Aircraft	8 1/4	7 1/2	+ 3/4	4,300
Breeze Corps.	4 3/4	4 1/4	+ 1/2	2,300
Brewster Aero	8 1/2	7 1/2	+ 1	9,800
Canadian Colonial	8	7 1/4	+ 3/4	6,600
Fairchild Aviation	12 1/2	11 1/2	+ 1	4,500
Grumman Aircraft Eng.	16 1/2	15 1/2	+ 1	100
Irving Air Chute	16 1/2	16 1/2	.....	800
Lockhead Aircraft	28 1/2	25 1/2	+ 1 1/2	24,100
Penn-Central Airlines	10 1/4	9 3/4	+ 1/4	5,200
Roosevelt Field	1 3/4	1 3/4	.....	200
Seversky Aircraft	3 3/4	3 3/4	+ 1/4	6,600
Waco Aircraft	5	4 1/2	+ 1/2	200
Western Air Express	3 3/8	3 1/2	+ 1/8	900

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## STOCK COMMENTS

Chart Data Supplied by Wyckoff Associates; Comments by Philip P. Friedlander

If the Stock Exchange was considered several weeks ago as a dull and uninteresting place for trading, what transpired within the last few days, has certainly changed this picture. Where pessimism once prevailed, a new-born and hopeful optimism has taken its place. Stock prices seem to predict that a new era has arrived.

There is nothing new in what we have just witnessed. Repeatedly it has been pointed out that the area of accumulation is the most uninteresting of all market phases. It is finally, when the move is ready, and prices make rapid strides that business is glorified and a new era predicted. When stocks are being accumulated, it is not advantageous to create too much optimism.

Aviation stocks have been under accumulation for quite a period of time. It was stressed that individual aviation stocks gave this picture more clearly than did the study of the averages. During the past week the composite group went into new high ground. The volume on the move-up was of large proportion, leaving no doubt that a signal for a major up-swing had been given. Normally the averages of aviation stocks should back down from the 39-38 level before the journey upward continues.

It is true that unlike past maneuvers the general market showed the way, and that aviation were more or less swept forward by the tide. This does not change the picture, but merely leads us to the important point that the major move in this group is just beginning.

Buy aviation stocks on softness. At this phase the transportation company will participate in the move-up, as well as the stocks of the manufacturing company.

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## Fortnightly Financial Review

# Martin Quarter Profit \$285,127; United Aircraft's \$2,187,890

Announcement of quarter reports by United Aircraft Corp. and Glenn L. Martin Co. headlined an active fortnight for aviation financial news. Decision of Douglas Aircraft Co., Inc., to sell stock to Dutch interests is reported in column 3, this page.

Net profit of United Aircraft Corp. and subsidiaries for June 30 period was \$2,187,890.13 (82c each on 2,649,437 shares), bringing 6 months net income to \$3,678,689.88 (\$1.38), all after tax and dividend provisions. June 30 backlog was \$35,515,000, comparing with \$24,074,000 a year ago. Sales were \$10,789,041. Total assets June 30 were \$39,571,970.88 with current assets of \$23,795,293.16, including cash of \$5,309,469.20. Of 3,000,000 \$5 per shares scrip are outstanding (\$13,223,985). Paid-in surplus was \$10,573,850.32. Earned surplus balance Jan. 1, 1939, as adjusted, \$4,418,576, plus net income for 6 months, \$3,678,689, before dividend paid on capital stock of \$1,983,557.25; or total capital and surplus of \$29,934,764.

Glenn L. Martin Co. net profit was \$285,127.54 (26c), and net sales were \$1,758,148.43, bringing net profit for the 6 months to \$967,624.09 (88½c) and net sales to \$5,298,659.53. Backlog on June 30 was \$37,835,458.43 compared with the Dec. 31 figure of \$13,903,006. "Additional orders are in prospect for the near future," it was stated.

"One large contract for bombardment planes has been completed and shipped," Glenn L. Martin announced, "and we are now in the process of changing over the production equipment for a still larger output of a new and ultra-modern bomber, on which shipments will begin in a few weeks. Production lines of the new model have now reached the final assembly stage." Payroll this month is about 7300, with plans for 10,000 late this fall, when 3 shifts will be operated.

Total assets June 30 were \$23,084,652, with current assets of \$15,390,233, including cash of \$3,050,170, accounts receivable of \$131,944, advances to vendors \$9,285, and inventories of \$12,198,832. Current liabilities, \$8,110,941. There were outstanding 1,092,308 1/3 shares of \$1-par outstanding. Capital surplus was \$10,612,993; surplus from operations \$3,268,410. Sales were \$1,758,148, and cost of goods sold (net) was \$1,370,909.

## Securities & Exchange Commission

Thompson Products, Inc., filed certificate of reduction of authorized capital stock, decreasing shares from 509,113 to 508,945 (9113 shares convertible prior preference no par, and 500,000 shares common, no par.) Company has filed prospectus covering 20,000 shares of \$5 cumulative; 96,484 no par shares will be initially reserved for issuance at conversion of prior preference stock registered and the 8945 shares of prior preference now outstanding. Net proceeds, estimated at \$1,899,021, will be used to repay short term indebtedness which on June 15 was \$1,650,000. Net sales in 5 months ended May 31 were \$6,064,991, and net profit was \$539,062. June 1 payroll was 2825.

Rearwin Aircraft & Engines, Inc., filed a registration statement covering 100,000 shares of \$1-par common to be offered at \$3.25 by Tobey & Co., and Hatch, Piper & Co., Inc. Estimated \$250,000 net proceeds will be used for sales promotion, working capital and labor to manufacture both aircraft and engines, additional plant equipment, and for development of a 4-place single-engine plane, and a 2-place trainer. A more powerful engine than the present 120 hp product is planned, of 7-cylinders, radial, air-cooled construction. June 15 backlog was \$35,000, including a \$20,000 engine order. May 17 balance sheet shows assets of \$438,838; current assets of \$126,100. Foreign sales options are held by Scandinavian Aero Industri A/S of Denmark for Ken-Royce engines, for territory of Denmark, Norway, Finland, Estonia, Latvia and Lithuania.

Continental Motors Corp. reduced its offering from 551,348 shares of \$1-par common to 201,348. Van Alstyne, Noel & Co. will purchase 50,000 shares at \$2; officers and employees will take 75,000 shares at \$2. Net proceeds are estimated at \$373,414, to be used for working capital. Underwriter's commitment is contingent on an additional RFC loan of \$500,000, which will

bring total indebtedness to RFC to \$1,249,950.

American Armament Corp., which had filed statement for 265,000 \$1-par shares, requested its withdrawal after the SEC had set a hearing to determine whether it contained certain untrue statements. Company had intended to use a portion (\$75,000) of its proceeds to develop a new military plane embodying the company's own new type military cannon. Barkley-Grow Aircraft Corp. has an agreement for construction and half-ownership of a new military aircraft for Miranda Bros., Inc., exporters. A. J. Miranda, Jr., is president of American Armament.

Seversky Aircraft Corp., in an amendment to its registration statement announced White, Weld & Co., will be underwriter, taking shares at \$18, offering shares to public at \$20, and to selected dealers at \$18.75. Amendment covers convertible first preferred, Series A shares. Directors on June 8 authorized reduction of stated value \$1-par common from \$1,505,291.42 to \$799,998, being the aggregate par value of the outstanding shares of such stock. Also authorized was elimination of earned surplus (deficit) of \$4,001,960.42 as of April 30 by charging it against capital surplus. Proceeds estimated at \$486,390 will finance production for an Air Corps order, and may be used to meet obligations under the rental purchase agreement with American Airplane & Engine Corp. Total purchase price of premises now occupied is \$880,000, less rental payments of \$143,000 which will have been made through Jan. 1, 1940. Ranger Engineering Corp., now occupying portion of the premises has options up to Dec. 31, 1939, to purchase area it holds. Seversky backlog is \$1,900,000, including a foreign order for single seat pursuit ships totaling \$967,619, and an Air Corps pursuit order for \$974,324. Maj. Alexander P. deSeversky severed all employment connection with the company May 20, according to SEC information.

## 5,750-MI. DELIVERY

Consolidated 28-5 Flown From San Diego to England For British Air Ministry

The Consolidated 28-5 flying boat purchased from Consolidated Aircraft Corp., San Diego, Cal., by the British Air Ministry, arrived at Felixstowe, England, airport early on July 14, captained and piloted by Russell Rogers. The boat flew 5,750 miles from San Diego in 50 minutes short of four days with stops at Buffalo, N. Y., and Botwood, Nfld. It was intended to make only one stop with the 28-5, at Botwood, but an unscheduled landing was made at Buffalo for refueling. Rogers blamed heavy headwinds for the stop.

Other members of the crew were Lewis A. Yancey, co-pilot and navigator; Raymond Booth, 1st class radio operator, and Gerald Brown, flight engineer. Squadron Leader James R. Addams, B.A.M. representative, accompanied the flight to England. The boat is powered by two Pratt & Whitney twin-row Wasp R-1830-S1C3G engines, and is equipped with two Hamilton Standard constant speed propellers.

## DEPOT ESTABLISHED

Parts-Service Center Set Up By Lockheed at Amsterdam

A parts depot and service base for its European operators has been established at Amsterdam by Lockheed Aircraft Corp., Burbank, Cal. Company recently created a \$100,000 wholly-owned subsidiary and plans eventually to equip it with complete facilities for servicing and maintaining all types of Lockheeds, according to Carl B. Squier, sales manager.

The organization is known as "Lockheed Internationale Verkoop Maatschappij N. V." (Lockheed International Sales Co.). Managing director is P. H. White, who formerly was in the foreign sales division of the Lockheed company.

## DUTCH BANKS BUY DOUGLAS STOCK

Arrangements Completed for Sale of 29,320 Shares, Comprising 5% of Securities Outstanding

Santa Monica, Cal., July 11—(Special)—Arrangements for the sale to investors abroad of 29,320 shares of its treasury stock have been completed by Douglas Aircraft Co., Inc., of Santa Monica, Donald W. Douglas, president, announced here today.

The block of shares comprising approximately five per cent of the stock now outstanding, will be delivered to a Dutch banking group headed by Nederlandsche Handel-Maatschappij and comprising the Amsterdamsche Banks, De Twentsche Bank, Labouchere & Co., Warburg & Co., all of Amsterdam, R. Mees and Zoonen of Rotterdam, and Helderling and Pierson of The Hague, subject to receipt of a permit from the corporation commissioner of the state of California, approval by the Securities and Exchange Commission and the acceptance of its listing by the New York and Los Angeles stock exchanges.

The price to be paid by the Dutch bankers is \$63.50 a share.

Coincidental with this announcement, William H. Lewis, controller of Douglas, released figures on results of operations for the six months ended May 31, disclosing an all-time high in the company's backlog, extensive new development and experimental work, and a satisfactory increase over the previous period in the indicated earnings of the company.

If and when delivered to the foreign investors, the new shares will be officially issued in whole or in part in Amsterdam in the form of certificates of Interland, the administration office connected with Labouchere & Co., Amsterdam. Negotiations in the transaction have been handled through Kuhn, Loeb & Co. of New York City. The new stock will increase the outstanding share capital from 570,680 to 600,000 shares.

Decision to accept the offer of the Dutch syndicate, Douglas explained, was in line with the company's policy of taking advantage of its strong financial position in its fiscal and industrial purchases. The proceeds will be used, Douglas said, to help finance the \$47,000,000 backlog of orders from U. S. and foreign customers. The company's extensive sales to European purchasers supply added incentive to broaden the base of its investors in markets where its products are so favorably known as they are in Holland and the Dutch East Indies.

Figures released by Mr. Lewis on the first half of 1939 show consolidated net profit after write-offs and provision for federal income taxes of \$1,396,791.11 and indicate a profit equal to \$2.45 a share on the 570,680 shares now outstanding. These earnings are subject to audit and year-end adjustment, and not necessarily indicative of results for the whole 1939 fiscal year ending Nov. 30.

In excess of \$1,000,000 was written off by the company during the first six months of 1939 for development of new models in commercial and military fields.

Current financial condition continues satisfactory with a current as-

15,656,000,000 Lb.-Miles

It was learned July 22 that the Post Office Dept. estimates that 15,656,000,000 air mail pound-miles were performed by air carriers during the fiscal year 1939, which ended June 30, last. This figure is based on actual statistics from July, 1938, through Apr. 1939, with May and June being estimated. A total of 15,656,000,000 would be 1,518,632,909 higher than that 14,137,367,091 lb.-mi. performed during the fiscal year 1938. May and June have been estimated at 1,350,000,000 lb.-mi. each which, in comparison with other months, would seem reasonable (last December, with the Christmas rush, totaled about 1,430,000,000). If, however, May and June prove exceptional and should average above 1,500,000,000, the fiscal year total would exceed 16,000,000,000. Fiscal year 1938's increase over 1937 was 1,404,836,217 lb.-mi.

## Precision Plant Moves

Adel Precision Products Co., manufacturer of precision aircraft parts for west coast plants, is now located at 231 S. Olive Ave., Burbank, Cal., having moved recently from its Hollywood address. New plant is 35x120 ft. in size. Paul W. Adler is president and H. R. Ellinwood, general mgr.

## Fairchild Amends Charter

Fairchild Aviation Corp. reports to the SEC that it has amended its certificate of incorporation to authorize 500,000 shares of \$1 par instead of a maximum of 375,000 shares.

set ratio of three to one. The balance sheet reflects a carrying value of \$600,000 for the DC-4 and \$370,583.25 for the DC-5.

Douglas now employs 8033 employees in two plants occupying 28 acres and utilizing 1,447,000 sq. ft. of floor space.



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